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MONTHLY REPORT

OF

THE AGRICULTURAL DEPARTMENT

FOR

AUGUST,

1865.

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MONTHLY REPORT.

DEPARTMENT OF AGRICULTURE,
Washington, August, 1865.

In June the prospect of a large wheat crop was all that the country could desire; but in the beginning of July the wet weather caused the rust in many localities, and its continuance during the entire month has seriously injured the shocks outstanding in the fields. The returns of the correspondents are very full, and they show a slight falling off in the wheat crop in the New England and middle States—something over a half million of bushels; a loss of about one and three-quarters million of bushels in the States of Maryland and Delaware, and a deficiency of over twenty millions of bushels in the western and northwestern States.

The returns of our correspondents were made on the 1st day of August, and at that time much of the wheat was yet unsecured. Since then the wet weather has extended to Wisconsin and Minnesota, where the harvest was commencing; but it is believed that no material damage has been sustained by this crop since the beginning of this month. Inquiries as to the quality and condition of the wheat have been made in circulars that will be returned on the 1st day of September, when the information will assume a greater certainty; for, before the wheat is threshed, opinions are in a great degree conjectural as to injuries like the present. It is believed, however, that the grain will be lighter than last year, for the wet weather caused the straw to ripen too rapidly. When in this condition the sap is too quickly withdrawn from the grain, and it is not fully filled out.

Inquiries have also been made as to the amount of old wheat in the country, so that with the next returns the department will have before it more complete information, by which it can state, with reliable certainty, the surplus for exportation.

The corn crop, as reported by the correspondents, exhibits the greatest promise. It is everywhere good. Thus in New York it is one and a half tenth better in appearance than an average crop; in Pennsylvania, two-tenths; in Kentucky, three-tenths; in Ohio, one and three-fifths tenths; in Illinois, the same; in Missouri, two and eight-tenths better. A good deal of it, however, was planted late, on account of the wet spring, and will need that the severe frosts should be late in coming, and occasional rains during September, to mature a full ear.

The potato crop is almost as promising as that of corn, but it has two dangers to threaten it—the rot and a too rapid growth of the top. It has overcome the depredations of the bug, and, with sufficient dry weather to favor it,

the yield will do much to supply that domestic consumption which a heavy foreign demand for wheat might render desirable in place of the usual one of this grain.

The other crops harvested will be ample for all domestic purposes, and that of oats will be very large, should the threshing of it show as good a grain as the crop is undoubtedly large.

The prospect, therefore, is that the injury to the wheat crop will be more than compensated by the unusual excellence of the other crops.

The tobacco crop is the only one that exhibits a general falling off in the amount planted. The heavy internal taxes on the manufactured product, and the apprehension of a tax on the leaf, are assigned by some of our correspondents as a reason for this diminished production. The lateness of the season may have had some influence, when labor was so scarce and so much demanded for other products. But it is a question well worthy consideration whether it is expedient to tax a luxury so high as to check its production, and in the end deprive the government of the tax itself.

The Commissioner has been consulted by gentlemen who are land-owners, and residing in the south, upon the question now engrossing so much public attention, as to the best mode of inducing an emigration from the north to the south. The article on that subject in the present report is a general answer, setting forth his views. The agricultural labor of the west or north will not go where it cannot own the lands it cultivates, either at once or prospectively. In Mexico two-thirds of this labor does not own land; in England a yet greater proportion are tenants. Its condition in both countries is well known, and American agricultural labor, holding a perfect equality with all other pursuits or conditions, will never consent to any other terms than that of ownership of its homestead.

The reader will find the progress of the English and European crops briefly set forth, for each week, in the extracts from the *Mark Lane Express*, one of the best agricultural papers of Great Britain. Another month will determine the extent of the English harvests. The accounts from Europe indicate that it will not have the usual surplus to compete with this country in the markets of Great Britain.

The tables showing the condition of the crops on the first day of August will receive the careful examination of every person; and for the prompt and very full report of it to him the Commissioner acknowledges the great obligation he is under to the correspondents of the department.

The amount of wool and the increase of sheep are shown by the table to bear a like proportional advance this season to that they have exhibited since 1861. The rebellion has given to this great interest a prosperity that protective laws under high tariffs failed to accomplish for it; and whether it is now, in peace, to continue prospering, or to fall back to its former depressed condition, is a question of highest interest to the country. The English woollen manufactures consume annually about three hundred million pounds of wool, and if we can

supply their operatives with breadstuffs and provisions, there is no reason why American manufacturing skill and enterprise may not, from American-grown wool, manufacture as cheaply as the English. There are no grades of wool that cannot be grown here. Texas and California can grow the cheaper sorts, while the more moist Atlantic and western States can cheaply produce the best of wools. Whether the depressed condition of wool-growing in past years has been the result of the antagonism of cotton production, or the want of co-operation between the wool-manufacturer and the wool-grower, is a question that should be clearly understood now, if we mean to manufacture either for ourselves or for both a home and foreign demand.

It is believed that no delays will occur in future relative to the printing of this report, so that it will be issued monthly, with great regularity. This is much to be desired, as is now seen when the weather is unfavorable and the earliest and most reliable information is needed of the condition of the crops. The restoration of peace will soon bring the southern States within reach of this department, when separate circulars will have to be issued to correspondents in these. A monthly report, regularly issued, will then be so imperatively demanded, that a bi-monthly publication would be inadequate to the business relations of the Department with the whole country.

In making this announcement, the Commissioner would remind the Smithsonian observers that it should be with them as with the correspondents relative to the crops; there must be a prompt return on the first or second days of each month of their circulars. It is impossible to carry the meteorological returns of one month in broken parcels to any other number of these reports than the one expressly setting forth the returns of that month. Let me remind them that the publication of a monthly report requires promptness on the part of all, especially in a country of so great territory as our own.

ISAAC NEWTON, *Commissioner.*

GERMAN AGRICULTURE.

LETTER OF MR. KLIPPART, OF OHIO

LEIPZIG, *June* 5, 1865.

DEAR SIR: I wrote you last from Berlin, and at that time mailed to our consul, Hon. C. I. Sundell, at Stettin, my report of the Stettin Fair, to be signed by Dr. Czapkey, who is stopping at Stettin, and then he is to forward it to you. From Berlin, I went to Frankfort-on-the-Oder to look at a large estate, but unfortunately did not find the proprietor, who had written for me to come. The valley of the Oder is a very rich agricultural region; the soil is much like that in the Mohawk valley, of New York State, and no landscape in the world can possibly be finer than that of ten to fifteen miles down the Oder from Frankfort. The crops in this region appear well, but there is very little wheat grown, the crops consisting of rye, barley, oats, clover, potatoes, rape, beets, turnips, lucerne, lupines, saradella, &c. Considerable *horse-tooth* corn is planted for green-soiling, and I found great inquiry for the horse-tooth variety. I am told that, since the breaking out of the rebellion, great difficulty has been found in obtaining this variety for seed, because Europeans knew of no other port than Richmond or Charleston where it could be had. I inquired if some other variety would not answer the purpose just as well, but was invariably informed that no other variety grew as rank or furnished as much forage as this kind; and when I told them that we had other kinds in America just as good, they replied that they had tried the horse-tooth and knew all about it, and had neither time nor money to try new varieties. The lupines are grown on sandy soil for sheep; there are two varieties, the yellow and the blue; the yellow variety is the most popular and most extensively grown; the blue is held to be inferior in quality and less prolific in quantity. The sheep eat them with great voracity; even lambs a week old eat them with great avidity. The lucerne is grown on a sandy soil, and is grown instead of clover. All the farmers prefer the clover, but it will not do well in the sandy regions, and the lucerne is therefore cultivated as being better adapted to that kind of soil than the clover.

From Frankfort-on-the-Oder I returned to Berlin, and from there proceeded to Dresden, the capital of Saxony. Saxony is more intimately interested in America and American affairs than I had ever supposed such an inland country could be. When the rebellion broke out there was a tremendous "hue and cry" in England about the sufferings of the working classes in Lancashire, Manchester, &c., although no cry reached us from Saxony, yet the Saxons suffered worse than the English did. I am told that the suffering here was in the extreme, and that actual starvation took place in some instances. When the financial crisis of 1857 swept over the United States, some of the heaviest establishments in Saxony failed in consequence. Saxony manufactures linens, woollens, cloths, laces, embroideries, stockings, &c., &c., for the American market. At Meissen is a large porcelain manufactory, employing 350 hands, which manufactures for the American market.

Agriculture is better developed, more science applied, and better results are obtained in Saxony than anywhere I have yet visited. In Prussia, that is, in Mecklenburg, Mark-Brandenburg, Pomerania, Posen, and the province of

Prussia, the land is owned in large bodies, the estates average 2,000 morgens or about 1,400 acres; but in Saxony the "tiller of the soil" is the owner of the land, hence the farms or tracts are small, for the population is very dense; in fact, Professor Dr. Reuning, the minister of agriculture for Saxony, told me that, exclusive of forest, there was just one acre of land for every individual of the population. This one acre, then, must produce the food and clothing for the individual, besides producing plants for commercial purposes. If the land was farmed as it is in the United States the Saxon must starve; but, fortunately for him, he believed that science could assist him in his agricultural operations, and he willingly accepted the counsels of science and put them into practice. There is an agricultural academy at Tharand, another at Chemnitz, an experimental farm at Pommritz, another at Salzmünde, &c. These schools have accomplished a vast amount of good; have made the farmers intelligent, and have made agricultural operations as systematic and intelligible as photography.

During the week I spent at Dresden I visited estates ten, twenty, thirty, and forty miles distant, in various directions, and have everywhere found the same untiring industry, thorough culture, and prudent management, and, what is more, have everywhere found the proprietors very intelligent. In order to give you an idea of how farming is done here I will give you the statistics of one estate I visited about twenty miles west of Dresden, the estate of Henry A. Steiger, esq. He is the inheritor of three estates, which lie contiguous, and are known as Löthayn, Leutewitz, and Zornig. These he farms as follows:

First year	Rape	Rape turnip	Clover.
Second year	Wheat	Wheat	Wheat.
Third year	Potatoes	Potatoes	Potatoes.
Fourth year	Oats	Oats	Barley.
Fifth year	Clover	Peas	Rye.
Sixth year	Rye	Rye	Clover.

He manures seventeen times in eighteen years, as follows:

1. *Rape.*—One and a half manuring of barn-yard manure and one-half manuring with guano and bone-dust.
2. *Wheat.*—No manure.
3. *Potatoes.*—Full manuring with barn-yard manure.
4. *Oats.*—Half manuring with guano and bone-dust.
5. *Clover.*—Half manuring with guano and bone-dust.
6. *Rye.*—Full manuring with barn-yard manure.
7. *Rübsen,* (rape turnip.)—Full manuring with barn-yard manure and full manuring with guano and bone-dust.
8. *Wheat.*—Half manuring with barn-yard manure and one-half manuring with guano and bone-dust.
9. *Potatoes.*—Half manuring with barn-yard manure.
10. *Oats.*—Half manuring with guano and bone-dust.
11. *Peas.*—Full manuring with barn-yard manure.
12. *Rye.*—Half manuring with bone-dust.
13. *Clover.*—Half manuring with guano and bone-dust.
14. *Wheat.*—Full manuring with barn-yard manure.
15. *Mangolds.*—Double manuring with barn-yard manure.
16. *Barley.*—Half manuring with guano and bone-dust.
17. *Rye.*—Full manuring with barn-yard manure and half manuring with guano and bone-dust.
18. *Clover.*—Half manuring with guano and bone-dust.

By this system he obtains three crops of wheat, three of rye, three of clover, four root-crops, (two of potatoes, one of mangolds, and one of rübsen,) two of oats, and one of barley, one each of peas and rape.

Potatoes follow the wheat, and clover follows rye or oats. This system of cropping and manuring is based upon the results and observations of many years' experience, and keeps the soil in good heart all the while. A full manuring of guano and bone-dust consists of equal weight of each, and four (4) cwt. applied to the acre, (Saxon.) A half manuring is 2 cwt. His harvests yield as follows :

Rape.—12 to 20 sheffels of 150 pounds per sheffel per acre; or 23 to 37 bushels of 60 pounds per American acre.

Wheat.—15 to 20 sheffels of 170 pounds per sheffel per acre; or 33 to 43 bushels of 60 pounds per American acre.

Rye.—18 to 20 sheffels of — pounds per sheffel per acre; or 30 to 40 bushels of — pounds per American acre.

Barley —18 to 25 sheffels of 140 pounds per sheffel per acre; or 32 to 47 bushels of 56 pounds per American acre.

Oats.—25 to 40 sheffels of 100 pounds per sheffel per acre; or 57 to 92 bushels of 33 pounds per American acre.

Potatoes.—100 to 150 sheffels of 150 pounds per sheffel per acre; or 190 to 285 bushels of 60 pounds per American acre.

If the ploughing, manuring, and seeding are properly done, and at the right time, he says he can rely on these results. There is very little damage to the crops by insects, since the birds are protected by law, and every grove is full of the feathered tribe. The other diseases of plants are resisted by proper cultivation, the soil being put into condition to grow thrifty and strong plants; for the farmers here hold that plants become diseased by neglecting to cultivate the plant, by neglecting to prepare the soil thoroughly, and by neglecting to use the best seeds.

Mr. Steiger's live stock consists of 100 milch cows, 25 heifers, 30 farm horses, 12 work oxen, 1,000 to 1,200 head of sheep, 30 brood sows. The milch cows are of the Holland, Oldenberg, and other celebrated milking races. He has several short-horns, but says they do not give as much milk, in proportion to the food they consume and the weight of the animal, as most of the other races. But he says the short-horns mature very rapidly, and make splendid beef. He said that, notwithstanding he had a large estate, he found it absolutely necessary to confine himself to growing that kind of crops and keeping those breeds of cattle which produced the greatest return in money; that he could not afford to indulge in fancy stock, either of horses or cattle; neither could he indulge in an orangierie or green-house, but he had a very beautiful and large flower garden of hardy plants. I was led to visit his estate on account of the sheep, because I had heard of it everywhere as being the most famous stock flock in all Saxony f not in all Germany. The flock was founded in 1806, by the purchase of the most celebrated bucks and ewes from the stock flock of the Prince of Reuss at Klipphausen; and the flock of the latter traces back to an importation from Spain of the most celebrated flocks there. The present flock at Leutewitz has been bred in-and-in for about sixty years, and has had no infusion or admixture of any other blood. Some of the bucks which I saw weighed, with one year's fleece on, one hundred and fifty pounds, and were almost as large as some of the Rambouillets I saw at Stettin. They were very finely built animals, and had splendidly compact heads. The wool was very fine, even, a capital crimp, and not overloaded with yelk. His men were shearing sheep when I arrived at the estate, and those shorn showed careful breeding, were in good condition, and well formed. The bucks' fleeces unwashed weighed from 12 to 20 pounds, and when washed from 6 to 10 pounds; the ewes' fleeces unwashed 7 to 10 pounds, and when washed 4 to 6 pounds. The wool is used in the manufacture of the finest cloths. The entire flock has folds around the neck, but not on the body; and yet Mr. Steiger insists on calling them "Electorals." This shows how arbitrary names are, for by Electoral *we* understand one without any folds

whatever. He sells annually 200 to 250 bucks, and as many ewes, and keeps as a regular breeding flock about 400. The sheep are kept in stables, and are kept very clean and nice. Sometimes they are driven out to pasture in the care of shepherds, but in winter are housed all the time, and are fed 1½ pound of hay, 3 to 4 pounds of straw, 2 pounds of mangolds, ¼ pound of oats or other grain, "chopped." The proprietor aimed to combine size of body with great product of wool and perfect form, and took especial pains to show me the classes of sheep which he will exhibit at the Dresden Fair, viz: *a*, sheep for size of body and perfect form; *b*, sheep for size of body and *quantity* of wool; *c*, sheep for quantity and quality of wool; *d*, sheep combining large size of body, perfection of form, quantity and quality of wool. The sheep that will take a premium over these last, owned and exhibited by Mr. Steiger, must be excellent sheep indeed. There seems to be a very unhappy difference of opinion between Mr. Steiger and Mr. Campbell, of West Westminster, Vermont, about the Hamburg exhibition. I know nothing of the merits of this difference of opinion; have heard Mr. Steiger's statement, but there is another side of the question, of course; and as I did not come here to settle difficulties, I could do nothing less than listen to Mr. Steiger, who was very kind and clever to me, when he volunteered his statement. One thing, I think, may be regarded as settled, and that is, that more sheep will be exported from Europe to America than will be imported by Europe from America for some years to come, at least; and very many of our Ohio men would have saved large sums of money if they had come to Silesia and Saxony to purchase sheep instead of going to Vermont. I mean by this that they could have purchased sheep of the same quality for much less money here; but the Vermont sheep are acclimated to the United States, and that is a great deal in their favor.

I forgot to mention in the proper place that the milch cows are all green-soiled, thus saving in food, or rather making a small amount of food go a great way. In winter each cow gets 25 to 30 pounds of mangolds, 4 to 5 pounds of grains, "chopped;" 5 to 10 pounds of straw, 2 to 4 pounds of hay, and water and potato slop, as much as the appetite craves. The manure from the cattle is carefully preserved—part composted, part preserved under a shed; and a system of collecting liquid manure is fully and thoroughly practiced. On almost every farm I visited I found liquid manure applied to the growing crops.

The horses are fed per day 15 pounds of oats and 10 pounds of hay; the oxen are fed 10 to 15 pounds of grain, according to the labor they perform, and 4 to 5 pounds of mangolds, with potato slop as a drink. The smaller farmers cannot farm with as much perfection of system as that practiced on the estate of Mr. Steiger, but they copy it as far as they can consistently with their means and extent of land. And to write the plan pursued by these smaller farmers would be simply to write out the history of each little tract, for the reason that no two farm precisely alike; each one has some little "hobby-horse" that he is riding, but in the main the system in vogue on Mr. Steiger's estate is the general plan of farming in Saxony. In other parts of the kingdom some one of the forage crops is omitted and flax grown in its place; and since the discovery of the abundance of American petroleum one crop of rape is introduced in an eighteen years' course, where formerly there were three rape crops. Professor Dr. Reuning, the minister of agriculture, and Professor Dr. Stoeckhard, of the Tharandt Academy, both informed me that if I was correct in my views of the extent of oil territory and continued supply of it in commerce, it would seriously affect the present system of farming; that then the crop of rape must be entirely stricken from the list of crops. Rape is grown for the oil it produces, but this oil is effectually superseded by petroleum. In every town and village through which I passed in Saxony I saw signs inscribed "American petroleum."

I visited the experimental agricultural station (Versuch's station) at Pommritzs, not far from Bautzen, some forty-five miles from Dresden. This station is

in charge of Professor Dr. Lehmann, one of Liebig's students. He is quite a young man, full of enthusiasm, a thorough scholar and gentleman, and earnestly and wholly devoted to his occupation, In his laboratory were quite a number of pots containing artificial soils; that is to say, quartz rock was pulverized to get pure quartz; lime rock was reduced to get at the carbonate of lime; pure potash manufactured and introduced, and so of the other ingredients—all manufactured and compounded in certain proportions to make artificial soils, and in these soils various plants were growing, some thriftily, others indifferently; but the object of these experiments is to prove, in the first place, that an analysis of the soil is an approximation to the true constituents of the soil; it is to prove, in the second place, that there is a chemical condition or relation of the soil which is just as important to the crop as the *mechanical* condition is. It is intended to demonstrate, in the third place, what particular ingredients each plant requires for its normal growth and development. This latter idea is then worked out in a practical manner on small experimental tracts, consisting, say, of four square rods each tract. The first tract is well ploughed and pulverized and sown in oats, but without manure of any kind; the second tract is manured with barn-yard manure; the third with guano; the fourth with bone dust; the fifth with insoluble phosphate of lime; the sixth with soluble phosphate; the seventh with guano and bone-dust; the eighth with guano, bone-dust, and barn-yard manure; the ninth with guano and phosphate of lime, and sulphuric acid; the tenth same as ninth, with addition of potash, &c., on to number twenty. It was very evident that these mixtures affected the growth and standing of the plant. Some plots were thin, short, and of a yellowish tinge; others thick or rank, good growth, and deep green; others pale green, &c., scarcely two plots presenting the same appearance in every respect. The soil was first of all analyzed and record made of it; then a record made of the ingredients applied to each plot; then a record made every week of the *appearance* of the plots, and an analysis made of the plants on each plot every week; this then secures a complete history of the oat plant grown with nineteen different manures, in all its stages, in one year. Then there are twelve such plots in pease, and other plots in other agricultural plants. Then there are about fifty head of cattle, mainly milch cows, kept, in the first place, for milk; and, secondly, as living subjects to experiment upon in relation to the nutritive properties of food, the hereditary transmission of quantities in breeding, &c. The cattle are Hollanders, Oldenbergers, Bavarian, and short-horn.

Professor Lehmann is fully of the opinion that the short-horn is not an improved Hollander, nor an improved animal of any particular race, but that the short-horn is the result of a judicious crossing in which care was taken to secure the good qualities of the original races. He does not esteem them highly as milkers; says they may have been good milkers in Collins's days, but they have been bred with a view to beef, and the milking quality, in his opinion, is pretty well bred out; he says he does not doubt that it may be bred in again, but if it is, it will be at the expense of the beef quality and early maturity.

He reasons in this way, and says it is founded on physiological laws and investigations, that when the secretion of milk is induced in a normal animal, the acquisition of fat does not take place; and when an acquisition of fat does take place, it is necessarily at the expense of the flow or secretion of milk; that the food which the animal consumes in excess of what is absolutely required to maintain its normal condition is converted into either fat or milk, and that this excess will take, *as a rule*, one or the other of these directions, but *will not divide;* hence the *Allgaer* race, he says, has so long been bred with reference to milk that it has become *impossible* to fatten a cow of this race; and the short horn has, in Europe, been bred so steadily and successfully with reference

to beef, that it would require many generations to make them as good milkers as the Hollanders, Oldenbergers, or Allganers, or Swiss.

In his feeding experiments he has obtained solid blocks of salt which weigh eight to ten pounds, has drilled a hole through the centre and passed a cord through this hole and fastened it to the trough, so that the animal can lick as much as its appetite craves. He says that different kinds of food require different amounts of salt, and hence he hit upon this idea of determining the precise amount of salt required by each animal according to its age, to each particular system of feeding. The block of salt is weighed every week; the food weighed when fed, and the animal weighed morning and evening. Of course, a record is kept of every detail. He has a seven-month old short horn heifer, weighing 523 pounds, of which he feels very proud. A son of Dr. Reuning, at Cunnersdorf, has a steer a year old weighing a little over *a thousand pounds*, of which the doctor feels very proud. This steer is of the Holland breed, and in the doctor's opinion is better than the short-horns. There is here, as in the United States, all sorts of opinions and notions about the superiority of the several races; but, after all sides have been heard, one feels satisfied that the Holland, Oldenberg, and Swiss races are the highest esteemed, or most popular, as milk races; one states where there is no scarcity of pasture or green forage; that the East Frisian, Angel, and Jutland, (all small races,) are the best milkers where there is a scarcity of pasture, or on small estates, but the short-horn is nowhere in Germany a favorite for milk.

Professor Lehmann has several Yorkshire sows which are under a system of experiments in feeding. I find throughout Germany that most of the swine are of English breeds, and that the native German breeds have almost wholly disappeared. Professor Spinola, of the University of Berlin, had some Hungarian swine, but he told me that it was almost impossible to keep them in confinement; that they fatten with great difficulty, mature very slowly, and consequently late, and, even when as fat as they could be made, that the flesh was very tough and tasted as though it were rancid. At a place called Moritzberg the King of Saxony keeps a hundred wild boars "for the chase," but I did not think it would pay to give five dollars for a drive to the place simply to see these uncouth animals.

All the agricultural implements and machines of native invention are very heavy, and to me appear very awkward and bungling. The American implements are much admired and eagerly sought for, but the supply is exceedingly limited indeed. John Bull enjoys a sort of monopoly throughout the Prussian states, as far as I have been, and in Saxony, in the sale of agricultural implements and machines, and yet our manufacturers could soon drive him from this market if they would only establish agencies here to introduce the American agricultural tools.

Reaping and mowing machines are being introduced, but as yet the quantity is very limited and the supply less. There is no use in sending any reapers here unless they at the same time are self-rakers; hence McCormick's is the most popular, and these are furnished by Burgess & Key, of England, and as a matter of course are of English manufacture. What the Germans want is our ash and hickory wood and our malleable iron; therefore they prefer American-made machines, rather than to manufacture them here or in England. American ploughs are much liked and very popular in Saxony, but not the hundredth part of the demand can be supplied. John Bull has endeavored to supply this market, but the Germans very much prefer the American ones. Then our spades, manure-forks, pitch or hay forks, and even down to household implements and tools, are sold as rapidly as they arrive, so that no stock remains on hand. A member of a heavy and very responsible firm in Dresden told me that he purchased all the American tools and implements that were for sale at the Hamburg exhibition, brought them home, and in a few days they were all

sold; then he commenced sending orders to the manufacturers in America, but could not get more than one order in ten filled, or, in other words, if he ordered ten dozen of any kind of implements, he could not get more than one dozen; he said that, notwithstanding the very high price in America, the insurance, freight, and tariff in Europe, yet he could sell more American implements in a less time and with greater profit than he could of any other kind. Can we not manufacture enough in the United States to supply our own and the European demand? If we have not laborers enough, send over here to Saxony and induce some of the Saxony mechanics to go to America, and we will get a first class population and set of workmen.

I made arrangements with Messrs. Shubart & Hesse, of Dresden, to make a collection of samples of seeds to be sent to your address this fall, specifying particularly the kind of soil in which the plant flourishes, when to plant it, that is, whether it should be planted in the fall or spring, and other things necessary to be known. Just at present is no time to look after seeds, because none but old ones are on hand. The plants are not far enough advanced in growth to judge much by them or of them.

I find all of our consuls very gentlemanly and kind, and very willing to do everything to further my mission, but unfortunately their acquaintances are, as a general thing, among the officials, and they are very seldom acquainted with anything agricultural.

Respectfully yours, truly,

JOHN H. KLIPPART.

Hon. ISAAC NEWTON,
Commissioner of Agriculture.

NORTHERN EMIGRATION TO THE SOUTH.

THE change in the system of labor in the southern States is presenting new and important questions for the consideration of the owners of lands therein. All must aid in organizing the labor of the blacks on the plantations, for they must maintain themselves; they cannot permit their labor to be supplied either by northern or foreign emigration. They must work or starve. The sooner, then, they can secure the field of labor the better.

But the south is capable of much greater progress than it had attained before the war. Many of the planters wish to call in northern aid, both of labor and capital. They desire that emigration should be not merely to the west, as it has been, but to the south also. And hence some of them are now visiting the north with a view to organize associations and to adopt other means to encourage emigration to the south,

The politician, too, is not uninterested in this matter. He sees that the recent civil strife was aided in its beginnings by want of mutual knowledge between the people of the south and north. Such knowledge would have led to a better mutual regard, and a more just appreciation of the skill, courage, and resources that belonged to each. Hence he believes that a mixing of northern and southern population will lead to mutual respect, resulting in that fraternal harmony that must prevail in States so intimately joined together. The crimination and recrimination of the past have not proceeded from the people near to each other on Mason's and Dixon's line, but from those most remote from it and each other.

Assuming, then, that a northern emigration to the southern States is at all times, and under all circumstances, but especially at this time, and under present circumstances, much to be desired, and for the benefit of both sections, we proceed to examine the *basis* upon which such emigration can be established.

It is not deemed necessary to consider here the ability of the white man to labor in the south. The affirmative of that question can safely be assumed, after so many laboring white families have emigrated from all parts of the south, where they worked in cotton fields, to the west; after so many of them have gone from the west to Texas, and after the armies of the north have safely met every exposure to southern suns. The height of thermometer is no greater in the south than in the north; the hot weather is more protracted, but ample time is allowed to work. We regard the doubt expressed on this point as having its origin in an excuse for the existence of slavery. But admitting that portions of the year might be too hot for white labor, is there not an abundance of black labor to meet the wants which such a physical inability might occasion?

Any one at all acquainted with the moving cause of the emigration to the west well knows that it was the desire to have a homestead, in fee simple, of good lands, purchased cheaply. Prices are, of course, relative; partially improved lands, or lands entirely woodland, of good soil, in States long settled, are no dearer, though of five, ten, or fifteen-fold price, than land at one dollar and twenty-five cents per acre in the unsettled forests or prairies of the west. But such lands cannot command the same number of emigrants, for fewer are able to purchase the higher priced lands. The southern States, however, with their present population and labor, need, comparatively, but few emigrants to what the new States of the west demanded. But to the extent of the emigration they desire, the same motive must govern it that induced emigration to the west. The homestead will be demanded. A few daily laborers may be governed by other considerations, but they will be few. And this condition of emigration is founded in the very nature of the Anglo-Saxon—a race more than all others most attached to the *family* and to *personal independence*. From these arise his unceasing desire for a homestead, secured to him and that family by the fullest title. On no other condition need the south expect a northern emigration of farmers.

In the possession of the homestead is involved certain adjuncts to it, not to each one separately, but to many collectively—without which no American farmer will live. These are good common roads, school-houses, and churches. The ownership of large tracts of five hundred to five thousand acres is a positive hindrance to the making of the one and the building of the others; for the landlord has not a personal interest in them sufficiently direct and urgent. He would be expending his means for these purposes less for himself than for them. He finds places for the education of his children and the worship of his family beyond the reach of the laborers on his farm. Washington worshipped at Alexandria; and the wealthy planter on his estate can employ a private tutor. Tenancies are unstable, and no tenant can regard his place as permanent that may be changed at the will of another person. Roads, school-houses, and churches belong to the realty, and not to tenancies or the person. What interest has a tenant to co-operate with other tenants in building these? An expenditure for such purpose might be made a pretence of exactions by the land-owner presuming that the tenant would submit to them rather than abandon this expenditure.

The *basis*, then, of a northern emigration to the southern States is the certainty that he can secure a homestead. Will the southern land-owner accede to it, by bringing his estates into market upon such conditions as will satisfy the emigrant?

It is too soon to answer this question. But few of these land-owners, we suppose, have, as yet, come to any determination respecting it, because time

has not been had for its consideration. Many of them, without doubt, are desirous to sell their plantations entire, but few emigrants have the ability to make such a purchase. They must be divided into smaller parcels, so that they may be brought within the ability of farmers in ordinary comfortable circumstances.

But there are considerations of profit which, in our opinion, should stimulate the southern land-holder to bring his lands into market, one of which will be here noticed.

The Rev. C. W. Howard, one of the editors of the Southern Cultivator, in an article on the grasses for the south, published in the Patent Office Agricultural Report for 1860, says:

"In no part of Christendom, enjoying a good government, and settled by an intelligent population, does land sell at so contemptible a price as in the plantation States. In Georgia, for instance, land does not command an average price of five dollars per acre."

He then considers the causes of this fact, and alleges that it is not because there are cheap and rich lands in the west, because that would have as much influence on the prices of land in the northern States (as New York) as on lands in the southern States; that there was an abundance of capital in the south to have given greater value to its lands; that it was not slavery, for it provided a cheap, steady labor for southern lands, and in several of the slave States lands were high, as in the rice and sea-island cotton districts, parts of Kentucky, &c.; that it was not in the unprofitable character of southern staples, for these were more profitable than northern and western; nor in the want of richness of the soil, because its superior fertility was conceded by all. He attributes this low price of southern land-estates to *the want of a proper system of agriculture.*

This is true, but it is also true that slavery, as a general rule, leads to reckless and ignorant plans of farming. Such farming prevails where large land-estates are found, and it is one of the effects of slavery to create these large estates; even in old countries, as in Rome, and in England, where the estates were created large by the form of government, in the first place, and kept large by a labor as much slave from its condition as was the servitude of the blacks here. It is true the English farm laborer of this age can migrate, when aided pecuniarily by others, as he has been from relatives here, or can seek other employment, as the agricultural laborer has done in Great Britain, by going into the manufactories, but whilst they are agricultural laborers their condition is servitude.

Bad systems of agriculture, then, have kept the southern lands low in price. But there is another cause of this cheapness, and it, too, has been occasioned by slavery. There is no agricultural product in the United States that will sustain, by its profit, an investment in the laborer and in the land too. Both must be very low, or one higher and the other very low. The latter was the case in the southern States generally. The profits of rice-growing and sea-island cotton production upheld a high-priced labor and lands, because their cultivation was limited by the limited amount of lands fit to grow these products. But, generally, southern products would not justify it, and as, for obvious reasons, the laborer was to be made as important as possible, the price of lands sunk down to what Mr. Howard justly terms "a contemptible price." The absolute necessity of a constant supply of cheap lands to maintain this state of things was seen, and hence the determined hostility to the enactment of any law excluding slavery from the Territories, and that constant effort to extend the area of slavery by annexation of new territory from adjacent countries.

If now, with the abolition of slavery, the southern land-holder will gradually sell his lands, he will find in their increased value a compensation that, in the

end, will reimburse whatever losses he supposes he has sustained in the freedom of his slaves.

Let us look into this a little, by comparing the value of lands in Georgia and Indiana. No two States could more equally represent the progress o slavery and freedom.

According to the report of the census of 1860, Georgia has 26,650,490 acres of land, valued at $157,587,732, being an average value per acre of $5 90; Indiana has 16,382,292 acres, valued at $353,712,175, being an average value of $21 16 per acre. If the latter had been $30 per acre it would have been much nearer the actual average, as every Indianian knows. But we are content to present the case as the census states it, however wide of the truth the latter may be. The lands of Indiana are $15 26 per acre more than those of Georgia. If those of Georgia were of equal value, then they would be worth $440,641,593, or $283,568,790 more than they were in 1860. The total number of slaves in that State, when the census was taken, was 462,198, and these would have to be of an average value of $613 to make up this lesser value of the lands.

There is nothing in the natural condition of the land of Georgia that should have prevented its being of equal value to that of Indiana, save that immigration would not seek it as it has the western States. The causes of this are obvious; but with their removal, and the adoption of the policy we have indicated, the southern States may run the same course of landed prosperity that has so pre-eminently characterized the progress of the west.

If these views are correct, and the southern land-holder is governed by the policy here suggested, then it will greatly hasten immigration, for the land-owners having lands to sell to form associations in each county, and by proper publications make known the inducements of their respective localities to emigrants. Such publications should show the probable number of acres for sale in the county, their general character as to soil, the usual products grown, the range of prices for land in different degrees of improvement and cultivation, the market facilities by common roads and water or railway transportation, the nearest principal market town, and its commercial connexions, the general condition of the county as to schools and churches, the general health, and the prevailing diseases, the population of the county and of the county seat, and the amount of black labor, &c. The State of Maryland has made known many interesting facts relative to the advantages its farming lands possess, and its example should be followed by the southern States and counties.

If there are any bodies of government lands subject to entry, of desirable qualities, these should be pointed out. In this way the northern farmer will soon become familiar with the peculiar advantages of southern localities, and this knowledge will spur him to a desire to benefit himself by them.

IS EVERY SEVENTH YEAR A WET YEAR?

Last winter several letters were received by this department from western farmers, predicting that the present season would be a wet one, because there had occurred a series of wet years of every seventh year, and the last one of these being in 1858 the year of 1865 would be the next one. This season has fulfilled these predictions, for in the west it has been very wet in the ploughing, planting, and harvesting operations of the farm, and in the east more than usually wet. Is there, then, such a recurrence of rains every seventh year as to justify the opinion expressed in these letters?

The expression "a wet season" is not very definite. There may be a wet *ploughing* time, as when that part of agricultural operations is retarded by too much wet, as a wet April; or a wet *planting* time, as a wet May; or a wet *harvest* time, as a wet July. When all of these farming operations have been delayed by too much wet, it is clearly a *wet season;* or the year may be a wet one by an unusual rain-fall during the year, particularly when this fall has taken place in the warmer seasons of the year.

The month of July is the month of drought, and it is a favorable season when there are sufficient rains falling in it to keep the fall crops in good growing condition, or it is regarded as a wet season when the rain falls in such excess in it as to injure the harvests of that month.

We purpose, therefore, to notice the rain-falls of the whole year, and of this month separately, and from them see whether there is such a fact as alleged, that every seventh year is a wet one.

In the January and February report for 1864 we published the annual amount of the rain-fall near London, England, from 1841 to 1863 inclusive—a period of twenty-three years. The average annual fall of rain for these years is 22.52 inches, and of July 2.30 inches. There is embraced in these years four periods, of seven years each, and commencing with 1841, the rain-fall every seventh year, and of each July therein, is as follows:

Years.	Inches for the year.	Inches for July.
1841	30.97	3.56
1848	28.34	2.21
1855	24.38	6.30
1862	26.54	2.09
	110.23	14.16
Annual average	27.56	3.54
Annual mean for 23 years	22.52	2.30
Difference, greater	5.04	1.24

Here every seventh year is most decidedly a wet one, and the July average wet, although two of the months are slightly below the average for this month, in the entire number of years.

Is the reverse true, that there is a similar period of dry years?

The first of the driest years in this table is 1847, and every seventh year following gives these returns:

Years.	Inches for the year.	Inches for July.
1847	16.65	0.79
1854	18.92	2.40
1861	19.48	1.90
	55.05	5.09
Annual average	18.35	1.69
Annual mean for 23 years	22.52	2.30
Difference, less	4.17	0.61

Here, then, by like facts, we have established that every seventh year is one of drought. Certainly these tables present sufficient coincidences to have established the fact in almost every farming community that there are regular wet and dry years, and that these occur septennially. We say "in almost every

arming community," because it is so prone to form opinions from slight coincidences and imperfect recollections.

And in like manner we may establish the fact that there are septennial years of medium weather, as follows:

Years.	Inches for the year.
1842	22.27
1849	22.84
1856	22.72
1863	20.32
	88.15
Annual average	22.04
Annual average for 23 years	22.52
Difference, less	0.48

Here, then, is the fact seen, clearly enough for common belief, that there is also a period of seven years medium weather as to the rain fall. But if any one is curious enough to ask why this last table did not contain the fall for the month of July, we answer that it did not suit, because, for three of the four years it was considerably below the general average. The four years were below the average of the same months for the dry years. And, like so many others, we take that which suits—that which sustains our theory or notions—and we reject all that does not. Now, herein lies the basis of all the notions about heat and cold, wet and dry; that which upholds our notions we take, what conflicts with them we reject. The plain fact is, that we may take other series of years in this general table of the English weather, and in the same manner as we have done above, show that there are other septennial series of dry and wet years, or a series of every third year. To a greater or lesser extent it can be done, but a study of the whole table shows the regularity of any series is most irregular. The years of rain-fall seem in many instances to be alternately greater or less, but there are so many variances in this, that every candid examiner must admit there is no rule to be drawn from the tables as to the regular return of wet or dry weather.

An examination of the meteorological tables of our own country will show like facts, but in a more striking degree, as our climate is one of much greater extremes. If 1865 is one of the series of wet years, then the table of the series as we find them in the army and Smithsonian reports will be as follows:

Years.	Inches for the year.	Inches for July.
1844	37.03	4.94
1851	36.40	3.78
1858	44.80	4 90
1865		5.05

Here we have the record of the years upon which is predicated the belief that every seventh year is a wet one; yet we find that two of them, for the whole year, are considerably less than the average rain fall of the six years between 1854 to 1859, inclusive, which is 41.23 inches, as given in the last meteorological publication of the Smithsonian Institution. The annual rain fall for the loyal States for these years is as follows:

Years.	Inches.	Years.	Inches.
1854	39.59	1857	42.89
1855	44.21	1858	44.80
1856	33.23	1859	42.64=247.36=41.23

These years embrace those of 1854 and 1856, the two most remarkable years of drought this country has known in the present century; yet, still, the wet years, as they have been assumed to be, of 1844 and 1851, are but 0.61 inch (a little more than half an inch) greater in their rain fall than these years of extreme drought.

The average fall of rain for the month of July for the six years in the last table is 3.93 inches, which is greater than the *wet* year of 1851.

But we have said enough to show that there is no foundation for this notion that every seventh year is a wet one. The fact is our climate has no *periodical* returns of heat or cold, or wet or dry, except the four seasons, as the records of the climate of New England clearly show, which are given to us from 1623 by the diaries of some of its ministers. The Pacific States and Territories have the regular trade-wind climate, as shown in the November and December report for 1864, but the summer climate of the Atlantic States has no other regularity than being most irregular.

What, then, is the cause of this irregularity? We cannot tell the *cause*, but something of the manner in which that cause *acts* is known.

In the November and December report for 1864 we gave the outlines of the machinery used by nature for the distribution of rains over the world. We there showed that our rains come from the evaporations of the South Atlantic and the Gulf of Mexico; and that the summer rains over the Atlantic States are occasioned by the central rainy belt which is accumulated by the high mountains in Central America, and turned by them over the Atlantic States; that this accumulated belt is called the concentrated counter-trade; that, usually, it falls in showers, more or less heavy, over all these States, but sometimes, as in 1854 and 1856, the clouds producing these showers are drawn together into a belt, which gradually extends its course north and eastward, curving round from Texas to the northern lakes. The present season shows us such a formation. It is dry in the southern States, and this concentrated rainy belt was first felt in Kentucky, then in Kansas, Missouri, Illinois, Indiana, Ohio, and to parts of Pennsylvania, and has been advancing northwards, until it has reached Wisconsin and Minnesota. This concentration has given too much rain to these States, and left the southern States too little. Now, why the rains so accumulate into a rainy belt at irregular periods cannot be determined. Doubtless the cause will some day be known, when sufficient meteorological observations have been made; and so we must continue, as is done by the Smithsonian observers, patiently to record and publish facts until enough of them are accumulated to solve the interesting questions relative to these summer rains over the Atlantic States. We have seen that by their record of facts, and those by the observers at the army posts, there is no such a thing as a septennial concentration of these rains.

AGRICULTURAL CENSUS OF AUSTRIA.

We give below tables of the last agricultural census of Austria, sent to the Department of Agriculture by our attentive consul at Vienna, Mr. Canisius. As transmitted to us, the weights, measures, and currency were Austrian, which have been changed to American that our readers might understand them. In making this change mistakes might have occurred in determining the values of those in Austria, for few things are more perplexing than with conflicting works before us to determine the values of foreign weights and measures, especially when the same name is given to a weight and a measure, and which, too, in neighboring States, have values differing more than a hundred per cent.

The principal land measure in Austria is the *joch* or yoke, which we took as 1.4223 American acres, not quite 1½ acre. The *klafter* is a measure of *length*, being 2.07424 yards, something more than two yards. The *metzen* is a measure of *capacity*, being 1.6918 bushels, or a little over 1⅔ bushels. The *eimer* is 15.02935 gallons, something more than 15 gallons. The *zoll cwt.* we valued at 101$\frac{6}{10}$ lbs., and the *florin* at 48½ cents. In making these changes, the yoke was not run out to its extreme fractions, and varies slightly in its quantities from the original table, but not materially so.

We have added, for the convenience of comparison, the numbers and quantity of animals and commodities of our own census returns for 1860.

Austria is a large agricultural nation, and, to a considerable extent, competes with our own products in European markets. Its measure of production is capable of much greater increase, and, hence, the progress of this nation is interesting to us.

In many things the Austrian census is much more complete than our own. We have not taken the value of our cereal products, only of our farm stock, and this altogether, not separately, for each kind, as should have been done. The incompleteness of our census is constantly embarrassing us, in many things of interest to all, when desiring to take notice of them, but cannot because there is no basis upon which to make estimates. Thus, for instance, our census does not notice the acreage of crops, or of meadows or pastures, or of orchards, &c. These great defects exist because agriculturists have not been consulted; but as the nation is beginning to perceive that *occupation* is an essential qualification for many official positions, it is not anticipated that these defects will be carried into the next census.

Tables from the Austrian census.

The different provinces of the empire.	Farm and rice land.	Vineyards.	Meadows and gardens, and olive, laurel, and chestnut woods.	Prairies used for pastures.	Forests.	Swamps with cane woods.	Total acres.
Austria, below the Enns	2, 011, 677	113, 540	636, 619	355, 000	1, 578. 290	4, 555	4, 699, 681
Austria, above the Enns	1, 047, 431	.....	529, 057	115, 040	1, 285, 137	349	2, 977, 014
Salzburg	166, 771	.....	189, 894	108, 522	953, 967	2, 558	1, 421, 712
Styria	1, 227, 875	77, 748	647, 589	532, 756	2, 606, 554	1, 079	5, 093, 601
Carinthia	340, 382	162	283, 339	259, 078	1, 377, 412	1. 859	2, 262, 232
Krain	336, 786	23, 854	408, 396	513, 993	1, 061, 746	1, 213	2, 345, 988
Görz, Gradiska, Istria, &c	353, 550	47, 078	240, 293	713, 613	502, 130	11, 306	1, 867, 970
Tyrol and Voralberg	369, 293	87, 753	663, 484	162, 916	2, 029, 823	.....	3, 313, 269
Bohemia	6, 161, 378	2, 917	1, 515, 226	973, 584	3, 719, 664	.....	12, 372, 769
Moravia	2, 789, 837	59, 251	470, 300	555, 515	1, 422, 809	1, 366	5, 299, 078
Silesia	592, 401	.....	94, 593	134, 394	404, 245	.....	1, 225, 633
Galicia	7, 996, 607	.....	2, 511, 018	1, 628, 207	4, 934, 125	.....	17, 069, 957
Bukowina	633, 732	.....	384, 653	309, 722	1, 184, 266	.....	2, 512, 373
Dalmatia	347, 311	170, 813	68, 616	1, 784, 556	676, 532	32, 754	3, 080, 582
Lombardy	2, 484, 783	37, 036	818. 184	1, 039, 762	742, 663	313, 070	5, 435, 498
Hungary	14, 440, 880	610, 975	5, 491, 328	6, 393, 374	11, 022, 486	361, 543	38, 320, 586
Serb. Wojwode and Temeovar Banat	3, 558, 667	107, 071	683, 816	1, 260, 986	951, 821	105, 541	6, 667, 902
Croatia and Slavonia	1, 266, 235	81, 260	533, 4 6	463, 577	1, 782, 763	28. 921	4, 156, 172
Transylvania	3. 074, 514	66, 843	2, 241. 342	1, 299, 846	5, 069, 096	5, 744	11, 757, 385
Military Boundary	1, 942, 920	68, 486	1, 158, 517	1, 120. 408	2, 306, 779	.....	6, 567, 110
Total acres	51, 143, 030	1, 554, 787	19, 610, 571	20, 724, 849	45, 622, 308	871, 858	139, 527, 403

Tables from the Austrian census—Continued.

Provinces of the empire.	Value of the whole real estate.	Value of the live stock.	Value of the agricultural implements and machines.	Total valuation.
Austria, below the Enns	$516,631,779	$17,442,956	$5,603,939	$539,678,674
Austria, above the Enns	199,798,999	13,551,761	2,856,356	216,207,116
Salzburg	39,041,059	4,722,599	454,866	44,218,524
Styria	205,096,537	17,766,389	3,428,661	226,291,587
Carinthia	48,216,405	6,716,678	928,588	55,861,671
Krain	49,269,834	5,414,086	943,007	55,626,927
Görz, Gradiska, Istria, &c	117,431,803	4,247,290	981,032	122,660,125
Tyrol and Voralberg	146,655,495	10,803,248	1,097,037	158,555,780
Bohemia	842,001,624	50,754,762	16,808,707	909,565,093
Moravia	373,538,625	20,203,724	7,670,142	401,412,491
Silesia	53,158,462	5,639,837	1,615,826	60,414,125
Galicia	231,585,909	72,940,647	21,538,722	326,065,278
Bukowina	24,859,056	10,398,941	1,728,560	36,986,557
Dalmatia	18,181,566	6,570,030	1,120,577	25,872,173
Lombardy	388,340,345	18,473,943	6,259,358	413,073,646
Hungary	923,036,917	137,610,308	40,013,765	1,100,660,990
Serb. Wojwode and Temeovar Banat	222,523,546	30,658,231	9,816,105	262,997,882
Croatia and Slavonia	86,572,500	14,925,569	3,536,886	105,034,955
Transylvania	122,029,645	36,520,167	8,454,388	167,004,200
Military boundary	----------	----------	----------	----------
Total	4,607,970,106	485,361,166	134,856,531	5,228,187,803
Value of same in the United States, according to census of 1860	6,645,045,007	1,089,329,915	246,118,141	7,980,493,063

Tables from the Austrian census—Continued.

LIVE STOCK.

Provinces of the empire.	Horses.				Mules.	Asses.	Goats.
	Stallions and geldings.	Mares.	Colts up to three years.	Total.			
Austria, below the Enns	58, 627	22, 375	4, 700	85, 602	38	330	39, 564
Austria, above the Enns	31, 497	12, 944	4, 298	48, 739	17	46	18, 277
Salzburg	1, 800	8, 618	2, 412	12, 830	.....	16	39, 888
Styria	20, 563	32, 880	8, 847	62, 290	38	282	33, 589
Carinthia	6, 579	13, 102	4, 056	23, 737	71	190	34, 232
Kraip	11, 717	7, 422	1, 614	20, 753	31	205	23, 852
Görz, Gradiska, Istria, &c.	4, 698	4, 137	713	9, 548	2, 021	11, 701	14, 994
Tyrol, Voralberg	5, 744	10, 349	1, 776	17, 866	2, 109	2, 686	139, 969
Bohemia	60, 667	96, 361	31, 540	188, 568	92	434	136, 911
Moravia	45, 112	65, 810	19, 564	130, 486	48	373	55, 667
Silesia	12, 891	9, 539	3, 829	26, 259	1	126	9, 369
Galicia	372, 379	235, 768	104, 075	612, 222	1, 068	1, 013	41, 805
Bukowina	12, 010	14, 659	7, 246	33, 915	43	70	16, 014
Dalmatia	12, 255	7, 596	2, 155	22, 006	6, 318	17, 758	424, 087
Lombardy	26, 109	35, 978	8, 436	70, 523	9, 535	24, 868	59, 234
Hungary	666, 249	626, 725	276, 849	1, 569, 823	1, 311	24, 571	127, 239
Croatia and Slavonia	63, 933	44, 570	21, 856	130, 359	695	719	28, 781
Transylvania	77, 930	73, 610	35, 882	187, 422	226	1, 108	146, 271
Military boundary	97, 824	74, 376	35, 251	207, 451	119	1, 697	128, 682
Total	1, 488, 581	1, 396, 719	575, 099	3, 460, 309	23, 781	88, 283	1, 517, 825
Number of same in the United States, according to census of 1860	.....	.....	.....	7, 434, 638	.....	1, 377, 934*	.....

Provinces of the empire.	Cattle.				Sheep.	Hogs.
	Oxen and bulls.	Cows.	Calves up to three years.	Total.		
Austria, below the Enns	111, 167	280, 806	137, 226	529, 109	352, 226	444, 442
Austria, above the Enns	97, 180	246, 185	144, 629	487, 994	150, 640	242, 557
Salzburg	17, 906	96, 266	73, 198	187, 370	122, 307	19, 267
Styria	116, 910	264, 750	194, 445	576, 105	193, 735	545, 901
Carinthia	49, 421	89, 710	90, 983	230, 114	152, 993	129, 127
Krain	56, 730	78, 970	53, 363	189, 063	82, 068	94, 689
Görz, Gradiska, Istria, &c.	39, 993	51, 707	18, 748	110, 448	350, 246	67, 493
Tyrol, Voralberg	40, 260	255, 772	136, 660	432, 692	264, 473	67, 583
Bohemia	283, 604	964, 988	587, 210	1, 835, 802	1, 269, 942	577, 274
Moravia	64, 643	344, 052	177, 572	586, 267	469, 244	326, 601
Silesia	10, 973	116, 410	65, 340	192, 723	105, 680	81, 238
Galicia	483, 917	1, 026, 083	816, 650	2, 325, 650	810, 832	683, 567
Bukowina	67, 834	73, 042	74, 290	215, 166	145, 236	87, 993
Dalmatia	56, 146	38, 366	20, 263	114, 775	815, 632	42, 218
Lombardy	177, 664	258, 221	160, 909	596, 794	390, 777	236, 753
Hungary	989, 519	1, 485, 818	1, 360, 655	3, 835, 992	8, 310, 153	3, 011, 828
Croatia and Slavonia	97, 745	149, 545	109, 332	356, 622	194, 668	417, 096
Transylvania	310, 900	355, 001	285, 892	951, 793	1, 897, 171	499, 948
Military boundary	184, 759	177, 394	140, 394	502, 547	879, 813	576, 533
Total	3, 256, 271	6, 353, 086	4, 647, 759	14, 257, 116	16, 964, 236	8, 151, 608
Number of same in the United States, according to census of 1860	2, 254, 911	8, 581, 735	18, 126, 382	28, 963, 028	23, 979, 085	36, 980, 772

*Mules and asses.

Tables from the Austrian census—Continued.

Agricultural productions.	AUSTRIA,		UNITED STATES, 1860.	
	Quantity.	Value.	Quantity.	Value.
Wheat...American bushels.	82,194,411	$82,450,000	173,104,924	
Mixed grain ...do..	25,000,000	19,109,000		
Rye ...do..	109,151,552	71,198,000	21,101,380	
Barley ...do..	84,518,944	42,389,000	15,825,898	
Oats ...do..	168,408,539	54,902,000	172,643,185	
Maize ...do..	72,875,876	40,255,000	838,792,740	
Hirse, buckwheat, &c..do..	16,462,905	9,894,000	17,571,818	
Rice...lbs..	52,425,600	2,328,000	187,167,032	
Pulse, (beans, &c)...bush.	8,296,587	7,517,500	15,061,995	
Potatoes...do..	202,173,483	24,250,000	153,243,893	
Cabbage...lbs..	6,062,065,600	13,480,000		
Sugar beets ...lbs..	1,879,600,000	4,171,000	271,102,205*	
Late turnips...bush.	16,918,000	1,161,000		
Fodder turnips...do..	33,204,958	3,395,000		
Flax and hemp...lbs..	273,100,800	24,444,000	153,706,145	
Linseed and hemp-seed,bush.	3,867,454	4,850,000		
Olive oil...lbs..	10,261,600	1,358,000		
Rape-seed ...bush.	2,030,160	4,947,000		
Tobacco ...lbs..	113,792,000	5,092,500	434,209,461	
Commercial plants...do..	22,758,400	1,018,500		
Straw ...do..	40,436,800,000	45,299,000		
Hay ...do..	36,880,800,000	110,095,000	38,167,792,000	
Mixed provender ...do..	20,523,200,000	76,387,500		
Hops ...do..	3,759,200	1,018,500	10,991,996	
Vegetables ...do..	1,593,088,000	9,506,000		$16,159,498
Fruit ...do..	1,343,660,000	4,995,500		19,991,885
Vine, (grape wine)...galls	499,996,415	67,900,000	1,627,242	
Wood ...cubic feet.	29,562,000	25,220,000		
Gall-nuts, turpentine, pot-ash, tan bark		7,760,000		
Milk ...galls..	1,427,788,250	61,595,000	449,681,372†	
			103,663,927‡	
Young cattle...number.	18,800,000	19,400,000	Slaughtered animals.	213,618,692
Meat and fat of grown cattle ...lbs..	1,786,534,400	92,200,000		
Sheep, (mutton) ...do..	68,275,100	27,499,500		
Silk cocoons...do..	27,330,400	10,476,000		
Skins ...number.	12,000,000	12,610,000		
Honey and wax ...lbs..	56,896,000	5,335,000	24,689,144	
Eggs ...number.	2,400,000,000	4,850,000		
Poultry ...do...	60,000,000	5,092,500		
Total ...		1,005,449,000		
To this add—				
Proceeds of hunting...lbs..	162,560,000	12,125,000		
Proceeds of fishing ...do..	147,320,000	10,185,000		

*Pounds of sugar. †Pounds of butter. ‡Pounds of cheese.

BEET SUGAR.

In the October number of these reports for 1863 we spoke of the experiment then making in Illinois, by the Gennert Brothers, in growing the sugar beet for sugar-making purposes. The amount invested in this experiment was stated to be about $50,000. It was supposed that the yield of sugar might be from 2,500 or 3,000 pounds per acre.

Arrangements were made by the department to have the results of this important experiment reported to it, whenever its success indicated a profitable result. But no report having been made, and as nothing was said of the experiment publicly, the inference was an unfavorable one; but as we find the following notice of the experiment in the Chicago Prairie Farmer of the 22d of July, 1865, we transfer it to our reports, because the experiments of the Messrs. Gennert Brothers will, in all probability, determine the success or failure of beet sugar-making in our country for many years:

Beet sugar.—The very successful experiments that have been made in sugar making from the beet, by the Messrs. Gennert Brothers, at Chatsworth, have attracted the attention of some of our largest capitalists who have been investigating the whole affair, and a stock company is being rapidly formed for the prosecution of the business. The sugar made last season, some 8,000 pounds, has been refined and furnishes one of best samples of loaf sugar anywhere to be found. Every experiment necessary to prove that there is no impediment in the way of successfully prosecuting the enterprise seems to have been made by the Messrs. Gennert Brothers, who are entitled to the greatest praise for the energy and perseverance they have displayed, and we doubt not, in due time, they will reap a rich reward.

In this connexion we add an extract from a letter written to the Commissioner of Agriculture by Mr. Klippart, of Ohio, who is now travelling in Europe on business of the Department, of a beef-root sugar manufactory visited by him:

"From Leipsic I went to Magdeburg to see the sugar-beet culture, and to visit a sugar-beet manufactory. From Leipsic to Magdeburg a large proportion of the land is in beets. The soil is well prepared by ploughing, harrowing, &c. The seeds are sown in drills about a foot apart, and then the plants stand from six to eight inches apart in the drill. A small corner is reserved in each field where the seeds are sown thickly for transplating in the field where the original seed failed to grow or the plant died. When we passed through this region they were transplanting, and an 'army' of men, women, and children, say forty persons, on a five-acre tract, were busy hoeing, weeding, and transplanting. (The Saxon acre is about equal one and a third American acres, and yields from 91 to 120 hundred weight of beets.) The manufacturers say that the small beets, weighing one to three pounds, produce or yield a larger percentage of sugar than the larger ones. When I told the manufacturer that we grew the beet in Ohio, weighing 18 to 20 pounds, he smilingly said 'You could make no sugar from them.' I told him 'we did make sugar from them, but they yielded much less than we had expected.' He said, 'Never take large beets to make sugar; we can make more sugar in proportion from those weighing one pound than from any others.' Our beets weighed ten, twelve, to fifteen pounds. The principal superintendent of the manufactory at Magdeburg assured me that there was no *secret* whatever connected with the manufacture of sugar from the beet root, but that success in manufacture depended upon a thorough understanding of the business. He said that *now* they manufactured just as surely and as certainly as a distiller could surely and certainly manufacture whiskey from rye. The establishment I visited is owned by Mr. Böckelmann and the Brothers Köhne; the director's name is W. Wisemann, and he seems rather anxious to have some *bright* Young Americans, who understand chemistry,

come and serve a year in the establishment to learn all about sugar-making and refining. He will take any young Germans. The establishment, with all the machinery and apparatus, cost about 250,000 thalers, or about $175,000. They were manufacturing at the rate of 20,000 pounds per day, and the refined sugar was then selling for nine cents per pound. The beet pomace is very highly relished by cattle; it is said to increase the flow of milk, and is an excellent adjunct for fattening cattle. In fact the fattest oxen that I saw in the Hamburg and Berlin cattle markets were those said to be fatted on beet pomace at Magdeburg."

A WOOL-GROWING TEST.

The increasing magnitude of wool production in our country makes every step taken to give right direction to individual effort of especial interest. Mere opinions, we might perhaps more justly say, mere notions, govern too much the operations of agriculture in all branches, and what is needed is to bring definite tests to determine the correctness of prevailing notions. Mr. D. D. T. Moore, of the Rural New Yorker, deserves every commendation for making an important movement to determine the value of *size* in sheep husbandry. Mere size has had too much influence in stock production. Another important aim in the premium offered by him was to show the difference between scoured and washed wools, that the value of sheep might be determined more by the weight of scoured wool than by the weight of the fleece as sheared.

We commend to the careful study of the wool-grower the following report and table. They cannot be separated, as both are essential to a full understanding of each. We hope it may stimulate both societies and individuals to further and more extensive tests.

REPORT OF COMMITTEE.

The committee intrusted with the duty of awarding the premium offered by Hon. D. D. T. Moore, "for the fleece of one year's growth, or thereabouts, which, on being cleansed, shall be found to give the greatest weight of wool in proportion to its time of growth and to the live weight of the animal," submit to your association the following report:

On the 11th day of May last, at Canandaigua, fifteen sheep were shorn in competition for Mr. Moore's premium—five of them rams, ten ewes. All of these sheep, except one Cotswold, were merinos. The liberal offer of $50 for the heaviest fleece of wool, to be tested by having it cleansed as wool is cleansed by manufacturers, excited much interest among breeders of sheep and the public generally. The fifteen sheep that competed were, it is to be presumed, supposed by their several owners to be as good as could be produced; and it is quite probable that in the main they were correct in this opinion, though in some instances the result of the cleansing shows to the contrary.

The true value of a fleece of wool must depend on its quantity and quality. Mr. Moore has asked for a test of only one of these points—quantity. It is perhaps well that he confined himself to this single point, for by so doing a breeder of Cotswolds, Mr. Gazley, was induced to compete. The well-known fact that the sheep that produce the coarser wools give fleeces that shrink much less in cleansing than the finer wools has led many persons to believe that, of clean wool, the so-called mutton breeds produce nearly or quite as much, in proportion to their weight, as the fine-woolled sheep. The opinion was freely expressed on the fair grounds that the Cotswold would win the prize. It is to be regretted that the mutton breeds had not been more fully represented, that the comparison could have been more complete than it now is. We will venture to express the hope that in future trials more of this kind of sheep will

compete, and, if necessary to induce this competition, that premiums be offered for the fleeces not only of fine-woolled sheep, but for the fleeces of the breeds raised principally for mutton. This might involve, perhaps, three classes, viz., fine-woolled sheep, long woolled, and middle woolled sheep.

We feel confident that Mr. Moore's plan of having the true weight of fleeces determined by positive tests must lead to important results in instructing both wool-grower and wool manufacturer, and lead both branches of the common interest engaged in producing the clothing of our people to a better understanding of the facts involved. The wool-grower desires to get the most he can for the produce of his flock—the manufacturer as naturally desires to get as much wool for a given sum of money as he can. However disposed the parties may be to deal fairly by each other, they will fail to come to an understanding mutually satisfactory, unless they are both in possession of a knowledge of the facts in the case. It may be true that much labor and cost is involved in cleansing fleeces and making the necessary figures to determine the relative merits of a great many of them, but knowledge in regard to so important a matter is worth the price.

It is due to your association and the competitors that the processes adopted by us in the discharge of our duties should be set forth. Mr. Goffe, one member of the committee, is the manager of the Syracuse Woollen Mills, and under his immediate direction the fleeces were cleansed. His statement of the manner is by him given as follows: "The wool was washed by taking 16 pounds of soda ash and 32 pounds salt, dissolved in 150 gallons of water in a large tub. I then took a small tub and dipped out a sufficient quantity to wash one fleece; then put in the fleece and scoured it in the small tub; then took out the wool and discharged the liquor, and washed each fleece in this manner, so that none of the wool was lost, wasted, or mixed with the other. In drying the wool we laid it on a cloth on the wire screen over our dryer, (which is inside the mill,) so that none of it was lost in drying. The strings were kept with each fleece and put with them when weighed after scouring."

These precautions appear to make it certain that there could be no error or unfairness in the process, and the result was that the wool was scoured, as Mr. Goffe says, "as we would for manufacturing—that is, we take out all the animal oil, or '*nature*,' as we term it, which is necessary in order for the wool to take color in dyeing."

The wool thus cleansed was carefully weighed, and then the weights, together with the weights of the uncleansed fleeces, the time the wool was growing, the live weights of the shorn animal, and the other facts necessary, were placed in the hands of Mr. Homer D. L. Sweet, a member of the committee, and by him the table that accompanies this report was made. This table shows by inspection the whole matter, placing the competitors in the order of their merit. The work of making this table was considerable, and Mr. Sweet's associates on the committee feel under great obligations to him for having taken it on himself. His manner of making the computations he describes as follows: "Divide the weight of the scoured fleece by the number of days it was growing. This gives the amount produced by the animal in a day. Divide this small fraction by the live weight. This gives the amount grown by *one pound* of animal in *one day:* multiply the fraction by 365 and it gives the amount grown by one pound of animal in a year, (this is the figure that decides who has won,) and this, multiplied by the live weight of the animal, tells how much it would produce in a year. This last operation proves the three foregoing calculations. The percentages of fleece to live weight, and of scoured wool to live weight, are computed in the usual way."

By this process Mr. Sweet has made a table that gives at a glance all the facts necessary to decide who has won the premium, and the exact standing, in all particulars, of each competitor in the contest. By simply reading the first line it appears that Addison H. Clapp (who stands at the head of the list) had

a ewe that was two years old, in fair condition, weighing forty-nine pounds, that sheared a fleece that weighed (as it came from the animal) nine and eighty-five hundredths of a pound; that it cleansed four and seventy-five hundredths of a pound of wool; that the uncleansed fleece weighed twenty per cent. of weight of animal; that the scoured wool was nine and sixteenths per cent. to weight of animal. The scoured wool to shorn fleece is forty-eight per cent.—making the loss in cleansing fifty-two per cent. The age of the fleece was 367 days; the quantity of wool produced in a day by the animal was .01294 of a pound; the quantity of wool produced by one pound of animal in one day is .000264; the quantity produced by one pound of animal in a year is .09636, and the quantity produced by the animal in a year would be 4.72 pounds. This is the standing, as appears by the table, of the prize animal.

To contrast this animal with one of its same age, sex, breed, and condition, we will take Mr. C. J. Sweet's ewe, No. 12 in the order of merit. Mr. Sweet's ewe was two years old, in fair condition, weighed 78.5 pounds, fleece 17.5, the scoured wool 5.31; percentage of fleece to live weight, 22.2; percentage of scoured wool to live weight, 6; percentage of scoured wool to fleece, 30.3; percentage of shrinkage, 69.7. This comparison followed through will give the whole case.

It may be well to institute some comparison between two rams. We will take M. F. Gibbs's, No. 5, and L. J. Bovee's, No. 13. Mr. Gibbs's ram was one year and one day old, in good condition; he weighed 50.5 pounds. His fleece weighed 11.31 pounds; it scoured 3.97; the percentage of fleece to live weight was 22.3; the percentage of scoured wool to live weight is 7.6; the percentage of scoured wool to fleece is 35.1; the percentage of shrinkage, 64.9. Mr. Bovee's ram was a year and fifteen days old, in good condition, weighed 108.5 pounds, sheared 18.09; scoured wool, 5.18; percentage of fleece to live weight, 16; percentage of scoured wool to live weight, 4.7; percentage of scoured wool to fleece, 28.6; percentage of shrinkage, 71.4.

In this connexion we will take the Cotswolds. Mr. Gazley's ewe, No. 8, one year and twenty days old, fat, weighed 99.5 pounds; fleece as shorn, 8.9 pounds; scoured wool, 7.31; percentage of fleece, *only* 8, while percentage of scoured wool to live weight of animal is 7; percentage of scoured wool to fleece, 82; percentage of shrinkage, 18, which is only about one-third as much as that of the prize animal. Mr. Bovee's ram, though a merino, produces more weight of animal in a year than Mr. Gazley's Cotswold ewe, but much less scoured wool; and this ram weighs more than twice as much as the prize ewe, sheared twice as much fleece, and in the prize column stands less than half as high.

Masses of figures present few attractions to most people; but we suggest to producers of wool and mutton a careful study of the table we give, being confident that useful information will be derived therefrom. We will content ourselves with one more comment.

It will be at once seen that the small sheep have greatly the advantage in the contest; not that the very smallest sheep proved the winner, but the rule, in the main, is proven to be true, that small sheep, having more surface in proportion to their weight, do give more wool per pound of body. This is entirely in accordance with the elaborate tables made by Mr. Sweet of the weights of animals and fleeces as shown in his own flock. His tables have been extensively published, and the lesson they taught is confirmed by our investigations.

For the mere purpose of wool-raising very large sheep are not desirable.

Respectfully submitted by

GEORGE GEDDES.
HOMER D. L. SWEET.
A. J. GOFFE.
JAMES M. ELLIS.
CHARLES TALLMAN.

JULY 8, 1865.

Table accompanying the foregoing report.

NAME OF OWNER.	Order of merit.	Sex of the animal.	Age in years and days.	Condition of the animal.	Weight of animal.	Weight of fleece shorn.	Weight of scoured wool.	Per cent. of fleece to live weight.	Per cent. of scoured wool to live weight.	Per cent. of scoured wool to fleece.	Per cent. of shrinkage.	Age of fleece in days.	Quantity produced in each day.	Quantity produced by 1 lb. of animal in one day.	PRIZE COLUMN. Quantity of wool produced by 1 lb. of animal in a year.	Quantity produced by each animal in one year.
A. H. Clapp.....	1	Ewe.	2.	Fair.	49.	9. 85	4. 75	30.	9. 6	48.	52.	367	.01294	.000264	.09636	4. 72
L. J. Bovee	2	Ewe.	.356	Fair.	53.	11. 21	4. 50	21. 1	8. 4	40. 1	59. 9	356	.01264	.000238	.08687	4. 60
Wm. M. Holmes.	3	Ewe.	1. 43	Good.	47.	8. 97	4. 43	19.	9. 4	49. 3	50. 7	408	.01085	.000230	.08395	3. 94
D. W. Percy....	4	Ewe.	2.	Good.	63. 50	14. 43	5. 12	22. 7	8.	35. 4	64. 6	373	.01372	.000216	.07884	5.
M. F. Gibbs.....	5	Ram.	1. 1	Good.	50. 50	11. 31	3. 97	22. 3	7. 6	35. 1	64. 9	366	.01084	.000214	.07811	3. 94
Josiah Taft.....	6	Ewe.	.331	Thin.	33.	7. 03	2. 28	21. 3	6. 9	32. 4	67. 6	331	.00688	.000208	.07592	2. 50
O. S. Williams ..	7	Ram.	2.	Thin.	61.	10. 81	4. 47	17.	7. 3	41. 3	58. 7	368	.01214	.000199	.07263	4. 43
E. Gazley.....	8	Ewe.	1. 20	Fat..	99. 50	8. 90	7. 31	8.	7.	82.	18.	385	.01898	.000189	.07098	7. 06
Arnold & Green .	9	Ewe.	2.	Good.	55. 50	9. 15	3. 59	16.	6. 2	39. 2	60. 8	336	.01068	.000192	.07000	3. 88
P. H. McMillen..	10	Ewe.	1. 4	Fair.	68. 50	12. 42	4. 81	18.	7.	38.	62.	369	.01303	.000190	.06935	4. 75
Theron Steele ...	11	Ram.	1. 60	Good.	77. 50	15. 72	6. 25	20.	8.	39. 1	60. 9	425	.01470	.000188	.06862	5. 31
G. S. Center.....	12	Ewe.	1. 347	Fair.	54. 50	10. 25	3. 33	18.	6. 1	32. 4	67. 6	341	.00976	.000179	.06533	3. 56
J. C. Sweet	12	Ewe.	2.	Fair.	78. 50	17. 50	5. 31	22. 2	6.	30. 3	69. 7	376	.01412	.000179	.06533	5. 12
A. J. Blood.....	12	Ram.	4.	Good.	95.	20. 09	6. 56	21.	6. 9	32. 6	67. 4	385	.01703	.000179	.06533	6. 20
L. J. Bovee	13	Ram.	1. 15	Good.	108. 50	18. 09	5. 18	16.	4. 7	28. 6	71. 4	380	.01363	.000125	.04562	4. 94

THE POTATO BUG.

We have received several letters from correspondents speaking of the injuries sustained by their potato crops from this bug. But as the following one gives what is apparently a successful trial in driving it away, we publish it, hoping it may prove as useful in all future trials:

SHELBY COUNTY, KENTUCKY, *July* 29, 1865.

DEAR SIR: A few copies of your valuable and very interesting reports have fallen into my hands, and I have become very much interested in their perusal. They contain much useful information, and make many useful suggestions to us farmers. I was induced to experiment, a few days since, from some hints I gathered in a recent number. The black and striped potato bug has been very destructive in this section for many years to our potato crop, especially when late planted. It destroys the tomatoes, also—a vegetable I prize highly. This season a portion of my potato crop was cut off by them; they appearing in innumerable numbers. A few days ago they attacked my tomato vines, and I tried scaring and whipping them off with bushes, but they returned, having soon become accustomed to this treatment. I tested other remedies with but little success, and finally used the common coarse salt, sprinkling it over the vines on which the bugs were then in great numbers. For other parts of the patch I prepared a strong salt pickle, by dissolving all the salt the water would take, and with a brush or small broom applying it to the vines. In ten or twelve hours there were but few bugs to be seen on the vines, and in less than twenty four hours there was not a bug to be found.

E. P. KING.

Hon. ISAAC NEWTON,
Commissioner of Agriculture.

TRADE OF SAN FRANCISCO IN AGRICULTURAL PRODUCTS.

California has recovered from the short crops of the past year, and prices of wheat have receded from four and five cents per pound to one and a half and two cents. The recent harvest is regarded as greater than any former one, and we presume that San Francisco will soon resume its usual exports of breadstuffs. The nations with which this trade is carried on are Great Britain, Australia, China, Victoria, (Vancouver Island,) Japan, Hawaiian Islands, New Zealand, Mexico, and Central America. This trade does not appear to justify liberal prices for wheat to the California farmer, for the *San Francisco Mercantile Gazette*, referring to the fact that the farmers in California had fixed their prices at two cents per pound for wheat, says: "Whether an export trade sufficient to keep up figures at that point will prevail, is very problematical. Not much demand, it is thought, can be expected from Great Britain this year, at even lower figures. Nor are we to anticipate any important requirement outside of Pacific ports. We must, therefore, look chiefly to China and Australia for an outlet, and in so doing must remember that we have to compete with Chili, which has, as we believe, already superabundantly supplied those markets."

In past years this export trade did not appear to be sufficient to take from Oregon its surplus wheat, where prices ruled as low as fifty cents per bushel until the past year, when the scarcity in California from drought caused heavy exports from Oregon to San Francisco.

The following table shows the receipts and exports of domestic produce at San Francisco for the years 1862–'3, 1863–'4, 1864–'5, from July 1 to June 30, of each of those years. It shows the effects of the drought of the winter of 1863–'64:

Receipts and exports at San Francisco of domestic produce.

Articles.	1864–'65.		1863–'64.		1862–'63.	
	Receipts.	Exports.	Receipts.	Exports.	Receipts.	Exports.
Flour.....qr. sacks.	229,169	20,820*	402,408	184,120	638,353	141,488
Wheat.....sacks.	458,677	2,369	1,846,118	1,074,292	1,864,652	1,159,748
Barley.....do..	396,162	13,820	611,143	40,270	432,203	30,424
Oats.....do..	265,703	3,369	304,044	91,090	177,105	59,511
Potatoes.....do..	346,654	.....	376,046	.....	364,423	.....
Corn.....do..	57,828	.....	16,473	.....	9,063	.....
Rye.....do..	325	.....	2,307	.....	1,466	.....
Buckwheat.....do..	603	.....	3,147	.....	1,801	.....
Beans.....do..	42,983	.....	83,568	.....	59,620	.....
Bran.....do..	51,267	.....	48,965	.....	88,880	.....
Hay.....bales.	208,396	.....	169,623	.....	165,131	.....
Wool, for 6 mos.do..	16,702	6,670	22,512	7,289	20,814	6,014

* Barrels.

It will be observed that the receipts and exports in this table are for the whole fiscal year, except wool, which are for six months each year, commencing with the first of January and ending the last day of June. The bale of wool averages about 225 pounds, and the exports of wool are almost entirely to New York and Boston.

THE CONSUMPTION OF GUANO IN GREAT BRITIAN.

The *Iowa Homestead*, as an agricultural brevity, says: "England is now paying for guano at the rate of about $6,250,000 per annum." This brevity, like many other brevities, is not quite large enough. Several of them lately published in newspapers, purporting to have been on information received at this Department, are but miserable presentations of the facts given to persons seeking information at the Department, for these persons, ignorant of agricultural matters, and wishing to make a "brevity" for their papers, omit so much as to utterly distort the facts themselves. Hereafter no information purporting to have been received at this Department is to be credited, unless officially stated. So much for these brevities; now for the tables of British guano imports and exports:

Guano imports and exports of Great Britian.

Years.	Imports.	Exports.	Consumed.
1854	$12,653,360	$2,696,965	$9,956,395
1855	15,685,800	2,417,675	13,268,125
1856	10,682,155	3,571,945	7,110,210
1857	18,065,370	1,486,790	16,578,580
1858	20,420,850	1,133,730	19,287,120
1859	3,846,665	1,297,240	2,549,425
1860	7,789,475	1,126,935	6,662,540
1861	10,111,415	702,850	9,408,565
1862	8,176,610	936,955	7,239,655
1863	13,294,280	402,670	12,891,610
Total of British consumption			104,952,225
Annual average			10,495,222

The practical lesson this table embodies to the American farmer is—beware of that cultivation which impoverishes the land.

FOREIGN CROPS AND MARKETS.

We continue our notices of the foreign crops and market prices, as given each week by the *Mark Lane Express*, a leading agricultural paper of London:

"*July* 10.—After a warm and bright opening in the past week, further heavy falls of warm rain came on Wednesday and Thursday, which were calculated to rapidly efface the vestiges of drought which lately prevailed. Wheat might have done without the moisture, but all the spring crops will be signally benefited, especially the beans and peas, while it will be the making of the esculents and after-math. It would have been sad indeed if farmers, after a series of low prices, should have found thin stacks and empty barns, for the experience we have now had of free-trade makes it by no means certain that a scanty harvest will be made up by an increased price. Notwithstanding the very favorable weather, wheat prices have stood very well in the several country markets, for the opinion that this year's harvest will not equal the last, and that foreign supplies will not reach their former extent, has become general. The rye crops,

so important to Germany, is universally admitted to be defective, and large operations have commenced for future delivery at advancing rates; so that whatever deficiency exists in this crop will have to be made up by inferior wheat, and thus lessen the general bulk for export. Oats again have suffered, abroad as well as in this country, and we cannot have inferior grain dear without its affecting wheat. In the south of France, just in proportion as the harvest is gathered is the disappointment of the yield. An average crop in that country is not expected, and we must remember that in 1862 we furnished France with one million quarters of our own growth, a claim that would probably press very hard if renewed; and we have yet to learn whether timely rains have done much to alleviate the severe and extensive drought in southern Russia. Prices abroad have rather hardened, but not materially, in the face of the new harvest."

The *Express* of July 17 says:

"Though the weather of the past week has been partly cloudy, with occasional showers, it has, on the whole, been favorable to the harvest, and exceedingly so as to grass lands and root crops. A great deal of rain, it appears, has fallen in Europe, and been everywhere welcomed; but the drought in southern Russia, we fear, is generally past remedy, and has already lessened shipments thence. Progress has been making in southern and central France with the rye and wheat harvests, neither of which gave satisfaction as to the yield, though the quality is reported to be good. The tendency of prices was downwards, but in southern France there was some firmness. Belgium and Holland have rather given way, as well as Hamburg, but throughout Germany very little difference of value is noted. Accounts of the English crops continue to come in widely different as to wheat, the clays and strong lands being full of promise; but from Norfolk, the fens and light soils, we expect poor returns. Barley, also, as well as wheat, differs materially, but the late rains will make some improvement. Oats are still expected to be very deficient."

The same paper of July 24 has the following notice of the harvest and prices:

"Another week has passed still more in favor of the crops, though it commenced with heavy rains and local storms, followed up by cloudy weather and occasional showers. Barley and oats have begun to be cut, and much of the former waits the farmer's first opportunity to gather it. This crop we expect will yield a larger proportion of fine samples than usual, as the sequence of the timely rains; but oats, though benefited much, will be below an average, and considerably so in many localities. Another fortnight will bring us into the midst of the wheat harvest, some fields of which will give very fine samples, and the quality generally, we think, will be good, but the yield on light soils very short. Many peas are gathered, and wait for more sunshine to be housed. The beans show little growth in the haulm, but the pods have lately been filling moderately well. As to prices, no advance was to be expected, with circumstances so favorable; but as the harvest ahead is met by a low range, and good old wheat must be wanted, farmers have been very little disposed to press sales at such a critical time. A set-in of wet, with our present prospects, would readily bring an increased value of $2 40 per 480 pounds, without any pressure on the public; and, indeed, since Friday night copious rains have laid much wheat and barley. In Paris, with earlier harvests, flour had rather improved in value, and wheat, both there and throughout the country markets, has been well maintained, with very few exceptions. In Belgium they are not expecting a full crop, but with harvest so near, prices have rather yielded. Holland remains much the same. Hamburg has been dull, but fine wheat at Danzic has well maintained its value, and throughout Germany, though business has been quiet, very little alteration is noted in the rates."

The same paper of July 31 says :

" With occasional showers through the past week, the weather on the whole has been favorable. Some wheat and barley have been laid, and some oats and peas that were cut have been endangered, but the growth and maturity of everything late have been promoted. The root crops and grass have experienced an extraordinary revival, and the rain has been quite the saving of the beans. The prevailing impression as to general benefit has been expressed in the downward tendency of the country markets, which mostly note a decline of one shilling per quarter (24 cents per 480 pounds) of wheat. But there have been so many storms in France that the trade in that country has taken a contrary course, and prices have gained there what we have lost in England. Previous to the heavy showers the yield was estimated at below an average, though the quality was considered good; though there are now fears as to this, and some pieces not yet gathered are reported to be sprouted. In Germany, too, there has been tropical heat, and in some localities excessive moisture ; and, as parts of southern Russia, as well as the Italian and Spanish peninsulas, have suffered from drought, there is no prospect of abundance throughout Europe. France will keep a vigilant watch upon our markets—more, it would seem, with the hope of seasonable supplies than with a view for placing exports. Germany, as of late, may find markets equal to or better than those of Great Britain in her own interior, while the little that southern Russia will be able to spare will probably be wanted for the Mediterranean and Marseilles."

From the accounts before us of the English crops, there seems to be a general average. Oats, beans, and peas will be short, but the hay is abundant and excellent, and the crop of potatoes promises a large yield. We think it will be found that there is a good deal of old wheat yet unthreshed and unsold among the English farmers, so that, if the harvests are safely gathered, no unusual supplies will be needed by Great Britain. These harvests commenced about the first of August, with rather wet weather, and the news for the coming two weeks, relative to this matter, will be looked for here with much interest.

THE DAIRY IN LONDON AND ITS CATTLE DISEASE.

An infectious disease has broken out among the cattle in the vicinity of London which has caused action by the government, and steps have been taken by the council to abate it. As yet, the nature of the contagion is undetermined, some believe it is the old disease of *pleuro pneumonia* brought into more active vigor by the improper keeping of the dairy establishments near London and other large cities.

The following account of these dairy establishments and the destruction of cows therein may not be without interest to our own butter and cheese dairies, for they point to increased English demand for their products.

A writer in Blackwood's *Journal of Agriculture* says :

"The number of cows kept in many large towns—and we may take, as good examples, London and Edinburgh—has not increased much during the last twenty years. The number, however, annually purchased in any single town is double and treble what it used to be prior to 1840. We perfectly remember seeing animals in the London sheds that had been one, two, and three years in the hands of town dairymen, on whose farms they were kept for a couple of months prior to calving; but now the majority of these animals are sold *diseased* to the butcher within five months of entering the dairy. The town dairymen have learned that a short-horned cow leaves an enormous profit, if she only lives, four or five months after calving, and he knows that his predecessors in the

trade erred in keeping the animals as long as they did; but he does not consider how best to economize the scanty quantity of stock this country can supply. He goes on buying and killing twice and thrice as fast as his ancestors, quite regardless of all consequences.

"No reliable statistics are at our disposal to prove incontrovertibly the rapid rate at which the cows of this country are annually decreasing, from the constant enormous mortality in our town dairies. It is acknowledged by all that reckless mismanagement leads to the rapid destruction of animals tied up for the production of milk in large cities."

Superadded to this waste and destruction is the contagious disease among the London dairies, and if judgment and good sense will characterize our own care of the lives and numbers of our cows, an increased and profitable dairy business awaits us. The latest news from Great Britain reports that the cattle plague continued violent, although the energetic measures of government had been taken to check it.

It seems that this disease has been brought from Russia; that it is "a catarrhal affection, producing in the blood an impurity which has a tendency to work itself outward in every direction, and any exhalation, even through the pores of the skin, of an animal affected with the plague, is highly infectious." Within one month after its introduction into England, 2,000 cattle had been affected by it, destroying the entire stock of owners.

THE AGRICULTURAL AND MECHANICAL COLLEGE OF KENTUCKY.

Last February the general assembly of Kentucky passed an act relative to the disposal of the fund to arise from the donation of Congress to create an Industrial College in that State. That body seems to have taken a view of this important matter that harmonizes with the general policy expressed in these reports—to consolidate all the educational funds it could command, and found an institution competent to give the most thorough general instruction in the sciences, and special instruction in the art of agriculture.

For this purpose the general assembly required the consolidation of the Kentucky University, at Harrodsburg, with the Transylvania University, at Lexington, and when so consolidated, they should be known as the Kentucky University, to be located at Lexington, and when this University secured a subscription of one hundred thousand dollars for the buildings and farm for the Industrial College, the donation of Congress should vest in this institution, and the Industrial College become a part of the Kentucky University.

The following proceedings of the Kentucky house of representatives will show that this arrangement has been completed, and that the endowment arising from this consolidation will place it in the power of the Kentucky University to impart the most extensive scientific and practical instruction in all branches of knowledge pertaining to the agricultural, mechanical, and all the other industrial pursuits of the State:

HOUSE OF REPRESENTATIVES.

FRANKFORT, FRIDAY, *June* 2, 1865.

The speaker laid before the house the report of the general agent of the Kentucky University, which was ordered to be printed, viz:

To the general assembly of Kentucky :

The act passed at your last session establishing the "Agricultural and Mechanical College of Kentucky," and making it one of the colleges of the Kentucky University, required, as a condition of its location at Lexington, Kentucky, that one hundred thousand dollars should be raised for the purchase of the lands and erection of buildings for the same. As the general agent of the Kentucky University, I beg leave to report, that the condition has been met by an appeal to the citizens of Lexington and vicinity, who have responded with a promptness and liberality which is an earnest of their appreciation of the trust confided to their hands. In less than three months the above amount has been secured, mostly in the city of Lexington.

This, however, is but the beginning of the great work proposed. With the sum of more than a half million dollars already secured, in the way of endowment, grounds, and buildings, and with the generous confidence and co-operation of your honorable body, and the liberality of its numerous friends throughout the State, we hope to have, in a very few years, a great university, *free*, *open*, and *accessible* to the humblest youth of the land, with a pecuniary basis of not less than a million of dollars, organized upon *broad*, *liberal* principles, commensurate in its scheme of study and discipline with the wants of the masses of our great and growing country and of our advancing civilization.

To the upbuilding of such a work I am willing to contribute, humbly and unselfishly, what of manhood I have. Through you we wish to say to the people of Kentucky, give us your confidence and sympathy, and we think we can meet a just public expectation.

All of which is most respectfully submitted.

J. B. BOWMAN,
General Agent of Kentucky University.

COMMONWEALTH OF KENTUCKY,
Executive Department.

The trustees of Transylvania University and the curators of Kentucky University having laid before me a copy of resolutions adopted by each, accepting the consolidation provided for in an act entitled "An act to establish an Agricultural College in Kentucky, approved February 22, 1865," and each of said universities having, by said resolutions laid before me, assented to and accepted all the provisions of said act, therefore I, Thomas E. Bramlette, governor of the Commonwealth of Kentucky, pursuant to the provisions of said act, do hereby authorize and empower the curators of the Kentucky University to organize the Agricultural and Mechanical College of Kentucky, pursuant to the provisions of said act.

In testimony whereof, I have hereunto set my hand and caused the seal of the Commonwealth to be affixed. Done at Frankfort this the 28th day of June, A. D. 1865, and in the 74th year of the Commonwealth.

THOS. E. BRAMLETTE,
Governor of Kentucky.

By the Governor :
E. L. VAN WINKLE, *Secretary of State*,
By JAS. R. PAGE, *Assistant Secretary.*

It will thus be seen from the above that the conditions of the acts of the legislature consolidating the two universities, and establishing the Agricultural and Mechanical College of Kentucky as one of the colleges of Kentucky University, have been complied with, and we take pleasure in announcing to the public that several colleges of the university will be opened at Lexington, Kentucky, in September next, and we venture to say that, with their able corps of teachers, valuable libraries, museums, apparatus, &c., the most liberal

advantages and facilities for education will be offered to the young men of the Mississippi valley.

We will also state that so soon as the commissioner, M. C. Johnson, esq, shall effect the sale of land scrip, and the accruing funds shall be placed at the disposal of the board of curators, steps will be taken toward the organization of the Agricultural and Mechanical College. In the mean time we feel authorized to say that at the session opening in September the institution, as already organized, will receive, *free of tuition*, one student from each representative district in the State.

A full announcement of the university will be published in a few days, giving the terms and conditions of admission, course of study, &c. Advertisements will also appear in the leading papers of the country.

Very respectfully,

J. B. BOWMAN,
General Agent of Kentucky University.

LEXINGTON, *Kentucky.*

EXPORTS AND PRICES OF FARM PRODUCE.

Exports from New York of the leading agricultural products from January 1, 1865, *to August* 9, *compared with those for the same time in* 1864, *and their prices in New York and Chicago.*

Articles.	From January 1, 1865, to August 9.	From January 1, 1864, to August 9.	Prices August 9, 1865—New York.	Prices August 12, 1865—Chicago.
Wheat flour.....bbls..	857,098	1,319,730	$5 65 to $9 60	$4 00 to $11 00
Rye flour.....bbls..	1,528	2,133	5 50 to 6 00	4 50 to 5 00
Corn meal.....bbls..	90,786	74,985	5 40 to 5 60	.....
Wheat.....bush..	1,276,019	9,305,611	1 35 to 2 00	1 08 to 1 50
Corn.....bush..	879,624	478,614	87 to 89	67 to 68
Rye.....bush..	86,099	405	98 to 1 10	66½ to 68
Barley.....bush..	.....	150	.....	1 05 to 1 07
Oats.....bush..	50,409	26,081	61 to 62	42 to 45
Peas.....bush..	31,148	151,208	1 30 to 1 35	.....
Cotton.....bales..	31,754	24,877	45	.....
Hay.....bales..	21,079	21,833	75 to 1 15	50 to 75
Hops.....bales..	13,110	17,226	10 to 45*	20 to 43
Leaf tobacco.....hhds..	43,808	37,467	7½ to 26	.....
Leaf tobacco.....pkgs..	50,568	42,854	.....	.....
Manufact'd tobacco...lbs..	2,526,212	2,782,789	.....	50 to 1 25
Petroleum.....galls..	5,857,898	10,568,795	52½ to 54	.....
Pork.....bbls..	82,517	96,625	29 00 to 34 50	29 00 to 31 00
Beef.....bbls..	25,400	25,654	8 00 to 14 50	10 00 to 13 00
Beef.....tcs..	37,454	41,290	.....	.....
Cut meats.....lbs..	28,239,087	83,254,745	15 to 20	15 to 18
Butter.....lbs..	8,485,132	7,044,258	23 to 35	12 to 22
Cheese.....lbs..	22,095,193	24,775,960	10 to 15½	12 to 18
Lard.....lbs..	17,522,970	42,737,034	19½ to 24½	23½ to 24
Tallow.....lbs..	13,838,753	23,638,985	11¾ to 13	11½ to 12½
Wool, (fleece).....lbs..	.....	.....	57½ to 75	53 to 60

* Prices of hops are rapidly advancing, it being understood that the present growing crop has been destroyed very extensively in New York by the lice. Further west it is thought to be safe.

FOREIGN EMIGRATION.

We are enabled by the courtesy of the collectors of the ports of New York, Philadelphia, Baltimore, and Boston to place before our readers the foreign immigration into the United States since the beginning of the present year.

		Male.	Female.	Total.
At New York:	January	3,390	2,177	5,567
	February	1,983	862	2,845
	March	4,117	2,094	6,211
	April	6,041	3,510	9,551
	May	10,921	7,756	18,677
	June	16,641	11,230	27,871
				70,722
At Philadelphia: For six months		508	575	1,083
At Baltimore: For six months		.....	.....	814
At Boston: For six months		.....	.....	2,236
Total for six months		.....	.....	74,855

TABLES OF THE CONDITION OF THE CROPS ON THE FIRST DAY OF AUGUST, 1865.

The great importance to the country of the condition of the crops, at this time particularly, when the financial affairs of the country demand a continued prosperity, will cause a general examination of the following tables. The figures 10, it will be remembered, represent the crop of last year, and the returns below or above indicate that the crop is less or greater than the cropof 1864. Thus 9 or 11 shows the crop to be *one-tenth below* or *one-tenth above*, and so on for any lesser or greater numbers.

Our comments on these tables will be seen at the end of them.

Table showing the condition of the crops, &c., on the 1st day of August, 1865.

STATES.	WINTER WHEAT.	SPRING WHEAT.	RYE.	BARLEY.	OATS.	CORN.	SORGHUM.	POTATOES.
	Amount harvested compared with crop of 1864.	*Amount* harvested compared with crop of 1864.	*Amount* harvested compared with crop of 1864.	*Amount* harvested compared with crop of 1864.	*Appearance* of this crop.	*Appearance* of this crop.	*Appearance* of this crop.	*Appearance* of this crop.
Maine	10 5/8	11	12	13	12	10 3/8	12 1/2	11
New Hampshire	12	11 1/3	13 3/8	10 1/8	11 1/8	11 3/7	.....	10 1/7
Vermont	10 1/2	10 1/2	10 3/7	11	12	11 4/9	.....	10 1/8
Massachusetts	9 3/8	9	11 3/11	10 7/11	11	12	12	10 1/2
Rhode Island	10	10	9	9 3/8	8 1/8	11 1/8	.....	10 1/8
Connecticut	9 4/5	9 3/4	10	10 3/5	12	11 1/5	10 3/5	11
New York	10 8/10	9 8/10	10 1/4	11 1/8	11 1/2	11 1/2	10 4/7	11
New Jersey	8 2/3	10	9 1/6	10	12	11 1/8	10 2/7	10 1/2
Pennsylvania	9 1/8	9 1/8	10 4/9	10 2/5	12 1/2	12	10 1/2	11 1/8
Maryland	8	.....	9	8 3/4	10 1/2	10 3/4	10 7/10	11
Delaware	6	.....	7	.....	10	10	8	10
Kentucky	6 1/10	8 1/7	9	10 3/5	11 3/8	13	10 3/4	11
Ohio	7 3/4	8 8/10	10 3/8	10 2/5	12 3/8	11 3/5	10 1/2	11 5/6
Michigan	9 1/2	9 2/3	10 1/3	11 1/10	13	12	10 2/5	13 1/4
Indiana	5 8/10	8 1/2	9 9/10	10 1/8	13	11 1/2	10 6/10	11 1/2
Illinois	7 1/8	7	10	8 1/7	11 2/3	11 3/5	10 1/2	11 1/2
Missouri	7 8/10	7 7/10	9 9/10	8 1/2	11 1/8	12 4/5	11 1/3	12
Wisconsin	10 9/10	10 8/10	11 4/11	12 1/8	13 1/7	12	10	12 1/2
Iowa	9 1/2	9 1/2	10 1/5	9 1/8	12	10	9 2/3	11
Minnesota	10 1/2	12	9 5/6	10 1/8	13 1/8	9 1/2	9 1/6	12 1/2
Kansas	9	9	11 1/4	9 1/8	13	13 3/8	11 1/4	13 4/9
West Virginia	8 1/4	9 1/3	10 3/4	10 3/5	12	12 7/10	11 1/10	11 1/3
Nebraska Territory	10 1/4	12 2/5	11 1/5	13 3/7	13 1/4	15 3/10	13 3/10	13 3/15

Table showing the condition of the crops, &c.—Continued.

STATES	TOBACCO.	FLAX.	BUTTER AND CHEESE.		GRASS AND CLOVER HAY.	
	Amount planted compared with 1864.	*Appearance* of this crop.	*Amount* made this season compared with same time last year.	*Amount* made this season compared with same time last year.	*Amount* of early-cut timothy compared with last year.	*Amount* of clover hay compared with last year.
Maine	11⅓	10¼	11¼	10⅓	12⅘	13⅘
New Hampshire	10	10¾	12	11	12	11⅘
Vermont	8⅗	10	11	10⅘	12⅗	12⅗
Massachusetts	8½	.....	10 7/10	10⅘	11 4/11	10⅗
Rhode Island	11	.....	10⅗	10⅗	11	11
Connecticut	8⅗	10½	12	12	12½	11
New York	8⅚	10½	11	11 1/10	12⅘	12½
New Jersey	9⅞	10⅗	10½	10	10⅗	9⅗
Pennsylvania	9	10¾	11	10⅓	13⅗	12⅗
Maryland	8	10⅐	10⅓	10	10½	10⅓
Delaware	.....	5	11	.....	11	12
Kentucky	7⅘	10	10⅓	10⅓	11¾	11⅑
Ohio	10⅕	10⅗	10⅗	10⅗	14	12½
Michigan	10⅗	10⅓	11¼	11¾	13	11⅘
Indiana	9⅕	10	11	10½	12⅗	11¼
Illinois	9	9⅘	10½	11⅗	11⅓	10⅘
Missouri	11⅕	10 4/10	10	10	12 7/10	11⅗
Wisconsin	9⅞	10¾	11⅐	11	13⅑	13⅓
Iowa	9⅜	9½	10⅗	10⅗	11¼	11
Minnesota	10¾	12	10⅓	11	12⅕	12 2/11
Kansas	9⅓	11	11¾	12½	13½	13⅘
West Virginia	10½	10⅘	11	10	12⅗	12
Nebraska Territory	9⅙	10⅜	14	12¾	15½	10

Table showing the condition of the crops, &c.—Continued.

STATES.	WOOL AND LAMBS.		WEATHER FOR JUNE.					WEATHER FOR JULY.				
			In weeks.					In weeks.				
	Amount of wool sheared compared with last year.	*Number* of lambs this spring compared with last year.	Favorable.	Wet.	Very wet.	Dry.	Very dry.	Favorable.	Wet.	Very wet.	Dry.	Very dry.
Maine	11	11 3/7	38	8	1	9	....	35	15	2	....	....
New Hampshire	11 1/7	11	24	4	....	....	....	16	4	....	6	2
Vermont	11	11	32	2	....	3	....	23	11	....	3	....
Massachusetts	10 1/4	10 3/4	31	8	1	3	....	14	1	....	4	2
Rhode Island	10 1/3	10 2/3	12	....	....	....	....	4	....	....	....	....
Connecticut	10	10 1/4	16	....	....	....	....	18	....	....	2	....
New York	10 6/7	10 6/7	111	30	....	27	1	107	35	2	24	5
New Jersey	10 1/2	10 1/2	46	6	2	10	....	24	8	3	17	....
Pennsylvania	11	11 1/6	83	48	15	33	5	61	81	34	16	....
Maryland	10 3/3	10 3/4	27	12	12	3	6	35	3	....	9	1
Delaware	10	11	2	2	....	....	....	1	2	....	1	....
Kentucky	10 3/3	11	54	29	4	20	7	38	44	22	4	....
Ohio	11 1/3	11 1/3	121	72	7	47	3	58	136	54	7	....
Michigan	12 1/2	13 2/3	44	32	2	49	6	44	57	21	9	....
Indiana	12	11 4/5	91	99	23	38	1	39	103	88	17	1
Illinois	12 1/2	12 1/6	110	35	4	111	10	61	100	83	23	3
Missouri	11 1/3	11 6/10	72	33	11	35	6	22	63	49	7	7
Wisconsin	13	12 6/7	45	34	7	47	6	54	52	21	9	....
Iowa	13 1/3	13	78	60	30	48	8	49	78	78	4	2
Minnesota	13 3/3	13 1/4	37	31	2	18	8	36	39	19	5	1
Kansas	12 4/5	12 1/2	27	18	10	11	2	18	38	18	3	....
West Virginia	11	11	33	25	3	9	2	15	33	30	5	....
Nebraska Territory	16	15	18	4	4	7	3	11	11	17	1	....
			1152	592	138	528	74	783	914	541	176	24

REMARKS ON THE PRECEDING TABLE.

Wheat.—The returns of the winter and spring wheat exhibit a large decrease of this important crop. Calculations were made from them, and the result exhibits the following deficit:

	Bushels.
Crop of 1864	160, 695, 823
Estimated crop for 1865	134, 454, 125
Decrease	26, 241, 698
The loss is as follows:	
In the New England and middle States	657, 383
In Maryland and Delaware	1, 719, 571
In the western and northwestern States	23, 864, 744
Total	26, 241, 698

Our correspondents made their returns on the first day of August, and at that time much of the wheat was not secured. Threshing had been commenced in some few places, and the yield was far from satisfactory. The grain was much shrivelled, and the yield very small, averaging as low as seven bushels to the acre. The returns on September 1 will be much more definite, but it is believed there will be, if any change, a greater deficit than above given. The next circular will show the amount of *old wheat* in the country, so that all the data for estimating our entire wheat resources will then be before the department.

The wheat crop of 1865 has been affected with almost every evil that so much besets this cereal. The prospect of an unprecedented yield was fine until the blossoming, when heavy rains fell, washing away the pollen, so that there was no fertilization. Large, finely grown heads were almost without a single grain.

Then followed rust, occasioned by rains and cool nights, which was very prevalent from Kentucky to Wisconsin. In localities the chinch-bug was destructive; but there were large portions of the country in which these evils were light, and the promise of an average crop was good until harvest, when heavy rains, daily falling, continued during the entire month of July, causing the wheat to sprout badly over the entire west, except in Wisconsin and Minnesota, to which States, however, the rains have extended since the first day of August, and they also may have suffered injury in their outstanding harvests. The extent of the injury by these rains cannot be fully known until our next (September) report.

These remarks are applicable to the west. In the middle and eastern States the crop of wheat is little injured, but on account of the heavy growth of straw, and the too rapid ripening, which is a consequence of it, the grain may be found somewhat shrivelled upon threshing.

Rye and barley.—These crops are fair, but not as good as could be desired. Their condition cannot be fully determined until threshed.

Oats.—This crop is universally the best the country has ever produced, so far as can be determined before the grain is threshed. In some places the wet weather has injured it while in shock, but if the grain has not been rendered light by too great a growth of straw, it will be by far the best oats crop the country has produced.

Corn.—In the spring this our national crop presented a checkered appearance. In rolling, dry lands, such as in Iowa, the planting was early, and the ground was well cultivated. But in colder soils, and in low, level lands, and especially on the river bottoms, rains and high waters held back the planting very late. The rains of July have brought this late-planted corn rapidly forward, and the general crop is now one of the most promising the country has ever had.

But there is apprehension of injury from weeds, especially in the late-planted fields, and on river bottoms overflowed by the excessive rains of July. Very dry weather in September may make the ears short, particularly where there has been overshooting, and where the fields are not free from grass and weeds.

Sorghum.—This crop is about an average one. There does not appear to be much desire to increase it until sugar is made from it.

Potatoes.—These promise to be one of the largest crops ever grown in our country. The high prices and scarcity of this article last winter stimulated planting, so that a larger crop than usual was put in. The potato bug injured it in some localities, but not to the usual extent, and the rains of July have given the general crop a most promising appearance. But the danger is great that the rot may become general. Symptoms of it are seen in some localities. And, then, should dry weather now set in, the too rapid and large growth of the vines may hasten a premature ripening, and thus, as in the cereals, the growth of the vines may have been at the expense of the tubers. It is too early, then, to speak positively.

Tobacco.—The lessened consumption of tobacco in consequence of the high internal taxes on the manufactured product, and the apprehension of a tax on the leaf, have caused a material falling off in the amount planted this season. This crop, as has been shown in these reports, is but barely able to sustain itself, and should these taxes so operate as to destroy or materially lessen the export trade in the leaf, (amounting to about twenty millions of dollars annually,) the tobacco-growing interest must protest against an excessive taxation if it thus paralyzes the growing of a product which, though it be a luxury, is nevertheless one of great pecuniary benefit to the country.

One of our excellent correspondents writes from Graves county, Kentucky, that "tobacco looks but indifferent, stood badly in the spring, grew off but slowly, and for the last month has been deluged with rain; consequently on low or flat land it is frenched, and in many localities scalded until dead. On rolling ground it is looking very well.

Flax.—This crop is slightly increased. It, however, requires too much labor to be increased rapidly at this time, and wool is chiefly relied upon. The fact that flax-cotton cannot yet be substituted for cotton, and that it cannot be, as intimated in the report of the flax commission, will cause no greater production of it than the ordinary use of it demands.

Butter and cheese.—The excellence of pastures has increased these products, but the scarcity of cows has limited this increase. The cheese factory system is rapidly extending, for its product is receiving about two cents per pound more than cheese made in the old way. The reports from Great Britian relative to the cattle disease there should receive attention from our own butter and cheese manufacturers.

Hay.—This important crop has been well harvested in the eastern and middle States, but much injured in the western; and in the latter much of it entirely destroyed by the heavy and incessant rains during its harvest. But that section has so great a substitute in its cut-up corn that no apprehension exists of a suffering in consequence; still the injury is to be regretted, when so great an effort is needed to increase our farm stock.

Wool and lambs.—The increase of these is most gratifying, but purposing to give them a full notice in the next monthly report, we must content ourselves with this simple reference to the continued progress of our sheep-husbandry. We believe still, as heretofore expressed, that the present fleece should not be rushed into market.

Weather.—The simple fact that in July, our month of drought usually, there are reported 1,455 weeks of "*wet*" and "*very wet*" weather, against but 730 weeks of similar weather in June, exhibits the extraordinary character of the month. To all we commend an examination of the admirable Smithsonian report of it in this number.

METEOROLOGY.

TO THE OBSERVERS.—In order to meet the demands of a monthly publication, it is absolutely necessary that you should complete your returns of the preceding month on the first day of the month following, and mail them on the second day.

FROM THE SMITHSONIAN INSTITUTION.

ADDENDA FOR JUNE, 1865.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain, (in inches and tenths,) for June, 1865, at the following places, as given by the observers named. The daily observations were made at 7 o'clock a. m. and 2 and 9 p. m.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
MAINE.				°		°	°	*In.*
Cornish	York	Silas West	25	93	14	51	68.1	1.90
NEW HAMPSHIRE.								
Claremont	Sullivan	Arthur Chase	17, 25	90	11	54	69.6	3.52
CONNECTICUT.								
Pomfret	Windham	Rev. D. Hunt	30	85	6	54		4.31
Columbia	Tolland	Wm. H. Yeomans	17	92	5	52	72.0	
NEW YORK.								
Columbia College	New York	Prof. Chas. A. Joy	30	92	6	58	72.7	2.97
St. Xavier's College	do.	Rev. John M. Aubier	22	96	15	59	71.8	4.58
Oneida	Madison	S. Spooner, M. D.	25	90	2, 23, 27	56	69.2	5.58
Rochester	Monroe	Prof. C. Dewey	6, 25	90	11	57	70.1	5.43
NEW JERSEY.								
Mount Holly	Burlington	M. J. Rhees, M. D.	30	89	15	61	73.5	
PENNSYLVANIA.								
Blooming Grove	Pike	Jno. Grathwohl	1, 4, 13, 22, 30	88	7	38	72.2	8.40
SOUTH CAROLINA.								
Hilton Head	Beaufort	Bvt. Maj. C. R. Suter	14, 16, 17, 28	92	2	70	81.0	6.93
KENTUCKY.								
Danville	Boyle	O. Beatty	5, 6, 7, 29	92	1	67	76.6	4.84
London	Laurel	W. S. Doak	29	90	1	61	75.9	
OHIO.								
Cuyahoga Falls	Summit	Rev. D. M. Rankin	24	98	27	40	74.1	
Gallipolis	Gallia	A. P. Rogers	6, 15, 17	90	10	58	74.4	

Addenda for June—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
OHIO—Continued.								
				°		°	°	*In.*
Kelly's Island	Erie	Geo. C. Huntington	6	92	26, 27	60	74.5	2.77
Portsmouth	Scioto	L. Engelbrecht	29	88	1	65	76.6	1.45
Toledo	Lucas	J. B. Trembly, M. D.	6	93	26	54	73.3	3.63
Ripley	Brown	G. Bambach, M. D.	6	97	2, 26	65	78.5	3.75
Cincinnati	Hamilton	Geo. W. Harper	18	96	26	60	77.3	2.59
MICHIGAN.								
Homestead	Benzie	G. E. Steele	17, 18	92	10	47	68.3	.....
INDIANA.								
Richmond	Wayne	John Valentine	6	91	26	56	73.1	4.49
Spiceland	Henry	Wm. Dawson	6	93	26	55	74.8	6.80
New Albany	Floyd	E. S. Crozier, M. D.	6, 18, 24	90	1	62	77.5	.....
South Bend	St. Joseph	Reuben Burroughs	17	92	25	50	73.8	4.13
Farmers' Institute	Tippecanoe	Isaac E. Windle	4, 17, 24	86	26	58	73.0	4.45
ILLINOIS.								
Sandwich	DeKalb	N. E. Ballou, M. D.	5	94	10	53	71.7	5.31
Pekin	Tazewell	J. H. Riblett	5	94	21	59	74.9	6.01
Waterloo	Monroe	H. Künster	23, 24	98	29	63	82.0	.....
WISCONSIN.								
Manitowoc	Manitowoc	Jacob Lups	2	92	10	44	63.2	4.09
Milwaukee	Milwaukee	Carl Winkler	6	93	10	47	67.7	3.82
Bloomfield	Walworth	Wm. H. Whiting	6	87	10	49	67.0	.....
Delavan	do.	Leveus Eddy	5, 6	90	20, 26	53	69.3	4.55
Waupaca	Waupaca	H. C. Mead	4	94	10	52	71.6	.....
Rocky Run	Columbia	W. W. Curtis	4	91	20, 26	52	70.2	5.23
MINNESOTA.								
Beaver Bay	Lake	C. Wieland	11	90	10	43	55.8	3.08
Odanah	Ashland	Edwin Ellis, M. D.	3	88	9, 10	44	58.7	.....
New Ulm	Brown	Charles Roos	3, 5	96	20	47	72.5	3.88
IOWA.								
Fort Madison	Lee	Daniel McCready	5, 6	92	10	60	75.2	6.61
Waterloo	Black Hawk	T. Stced	3	90	1	54	69.0	.....
KANSAS.								
State Ag. College	Riley	H. L. Denison	4, 5, 28	90	25	59	76.1	7.98
Fort Riley	Davis	C. E. Sullivan	23	97	10, 17, 18	63	76.0	5.47
NEBRASKA TER.								
Elkhorn	Washington	John S. Bowen	4	96	18	56	71.7	.....
Bellevue	Sarpy	Rev. Wm. Hamilton	5	92	20	57	73.7	5.05
UTAH TERRITORY.								
Great Salt Lake City	Great Salt Lake	W. W. Phelps	20, 25	90	17	45	70.4	7.00

Table showing the average temperature and fall of rain (in inches and tenths) for the month of June, in each year named, and for the five years first named, collectively, with the average number of places in each State in which the observations were made.

States and Territories.	Av. number of places.	Averages, 1855.		Averages, 1856.		Averages, 1857.		Averages, 1858.		Averages, 1859.		Av. for five years.		Averages, 1863.		Averages, 1864.		Averages, 1865.	
		Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.
		Deg.	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*
Maine	6	61.7	6.1	63.8	2.9	59.3	3.7	63.3	2.1	60.3	7.2	61.7	4.4	60.6	2.3	64.4	1.09	66.6	2.00
New Hampshire	3	63.9	3.8	67.2	2.0	61.8	3.3	67.4	2.3	53.7	5.1	62.8	3.3	60.9	2.7	63.7	0.91	67.7	2.80
Vermont	4	60.7	8.4	66.3	2.5	61.2	4.9	67.6	3.8	62.0	4.0	63.6	4.7	61.3	2.1	64.4	1.29	66.7	2.71
Massachusetts	12	54.3	4.0	66.6	3.0	62.5	2.5	66.9	4.7	63.6	6.5	62.8	4.1	61.7	1.8	65.1	0.97	69.7	2.69
Rhode Island	1	65.3	2.0	67.8	2.5	62.0	1.9	67.7	5.6	63.7	7.7	65.3	3.9	.....	.....	65.6	1.22	.....	.....
Connecticut	4	64.8	4.1	67.4	2.7	62.1	3.1	62.1	3.9	62.9	7.3	63.9	4.3	57.6	.....	67.1	2.06	71.2	3.36
New York	17	63.2	5.5	68.3	3.1	63.4	6.8	69.7	4.1	62.9	4.0	65.5	4.7	62.5	1.9	66.1	1.53	70.1	4.81
New Jersey	4	68.8	5.5	72.2	2.8	67.0	6.6	72.8	4.2	67.3	3.5	69.6	4.5	66.2	10.5	68.1	1.75	72.7	3.87
Pennsylvania	19	67.3	8.2	72.5	2.9	67.4	7.4	73.6	4.4	67.7	3.7	69.7	5.3	63.5	3.6	69.1	2.38	73.7	5.06
Delaware	1	68.9	.....	.....	.....	69.9	.....	76.4	2.3	.....	.....	7.4	71.7	4.8	.....	.....	70.5	1.80	74.2	3.30
Maryland	4	70.8	5.7	75.0	3.0	72.4	8.3	73.8	3.8	69.7	3.6	72.3	4.9	67.6	2.7	70.4	1.45	75.5	3.78
District of Columbia	1	71.2	5.6	74.7	5.9	71.6	6.5	76.4	1.4	71.4	5.0	73.0	4.9	70.2	2.6	72.1	0.81	.....	.....
South Carolina	5	75.5	5.8	78.9	3.8	78.1	2.6	81.8	2.2	76.6	4.6	78.2	3.8	.....	.....	75.9	5.95	81.0	6.93
Tennessee	2	70.9	5.1	77.6	1.2	73.9	3.6	75.1	5.8	75.2	4.4	74.6	4.0	.....	.....	.....	.....	.....	.....
Kentucky	4	70.8	6.1	76.7	2.8	69.7	4.9	74.8	4.1	72.0	3.3	72.8	4.2	.....	.....	72.6	3.09	75.8	4.25
Ohio	20	68.5	8.5	73.0	3.4	67.5	5.2	72.9	5.2	66.8	4.4	69.7	5.4	61.5	1.9	69.2	2.89	74.6	3.48
Michigan	7	63.5	8.4	68.8	4.6	63.4	3.7	70.1	3.9	61.3	3.3	65.4	4.9	62.7	10.8	67.8	4.25	71.3	2.74
Indiana	5	68.6	5.2	76.5	2.1	68.0	4.7	73.5	5.6	69.9	4.7	71.3	4.5	66.6	2.6	73.1	1.41	75.0	4.63
Illinois	14	67.8	2.8	75.1	2.6	62.6	3.9	72.8	5.8	66.6	2.9	69.0	3.6	67.3	1.5	72.1	2.29	68.7	4.50
Wisconsin	6	63.7	3.9	64.5	4.1	62.1	4.5	69.0	5.3	62.3	5.1	64.3	4.6	61.4	1.2	66.9	1.33	68.5	4.49
Minnesota	3	66.7	5.0	67.4	2.8	64.5	4.1	67.7	2.8	59.8	6.5	65.2	4.2	61.9	0.3	66.9	1.43	66.4	4.33
Iowa	9	68.4	5.0	73.5	1.9	68.3	1.8	72.2	6.4	66.2	5.6	69.7	4.1	68.6	1.5	72.0	4.29	70.6	6.98
Missouri	2	71.6	4.3	79.5	1.1	70.6	2.6	76.5	6.7	72.5	11.0	60.1	5.2	72.7	0.7	75.5	1.71	74.4	6.04
Nebraska Territory	3	.....	.....	.....	.....	70.6	3.3	74.5	7.1	71.0	2.8	70.9	4.3	67.7	2.8	74.3	2.86	72.7	5.07
Kansas	3	.....	.....	.....	.....	72.1	1.1	74.9	8.3	73.2	5.8	73.4	5.1	71.5	5.9	76.9	2.19	75.2	9.77
California	2	.....	.....	69.3	0.0	66.5	0.2	68.1	0.1	72.4	1.3	69.1	0.4	.....	.....	71.5	0.09	.....	.....

Cornishville, Maine.—June 4.—Heavy tornado from 4 to 4½ p. m. 26th, farmers commencing haying.

Lee, Maine.—Slight frost on the morning of the 2d and 3d.

West Waterville, Maine.—Hay harvest commenced on the 28th day of June, about six or eight days earlier than usual.

Steuben, Maine.—June 3.—A terrible frost, intervale as white as snow. 15th, a very severe frost this morning; grass and everything out of doors covered with it; water standing in vessels, &c., frozen. Everything subject to be killed by frost is killed, if up, as beans, corn, potatoes, pumpkins, &c.

Middlebury, Vermont.—June 3.—Slight frost this morning.

Skaneateles, New York.—June 7.—Very heavy thunder-storm from 3 to 6 p. m. Rain fell in torrents, deluging the streets; hailstones measured an inch in diameter, and were oval shape and flat, similar in form to squash seed.

Newburg, New York.—June 9.—Between the hours of 2 and 5 p. m. a terrific storm visited the vicinity of Buttermilk Falls, accompanied with a severe gale, hail and lightning.

Fishkill, on the Hudson, N. Y.—June 18.—Haying commenced.

Garrison's, New York.—The month of June has been marked by an unusual number of violent storms, with very high winds, thunder and copious rains.

Jamestown, New York.—June 24.—About 10 a. m. a heavy shower came from the northwest, a wing of which passed over this place. The Congregational and Presbyterian churches, protected by conductors, were struck by the lightning, but not injured. The spire of the Roman Catholic church, which had no rod, was struck and completely shattered.

Palermo, New York.—June 19.—The hardest thunder-storm ever known here occurred this afternoon between 4 and 6 o'clock. The lightning struck several trees and the chimney of one house in this vicinity. Three and a half inches of water fell in about an hour and a half. 21st, a tornado passed one mile east of here at 2 p. m. It was accompanied with hail, and broke and blew down trees and strewed the fences about. 30th, there has been but one June warmer than this during the past twelve years, and that was in 1860.

Newark, New Jersey.—The mean temperature of June was more than half a degree above the mean of any of the previous twenty-one, and nearly four degrees above the mean of the entire series. The amount of rain was about the average of the month in Newark, but in many places in the immediate vicinity there was a larger fall. There was no storm during the month.

Greenwich, New Jersey.—June 23.—Farmers commenced harvesting wheat to-day, it being about ten days earlier than usual.

Cannonsburg, Pennsylvania.—June 23.—Cutting barley.

Fallsington, Pennsylvania.—The past June has been the warmest, except in 1858, since I have kept a record, (1849.) The wheat harvest is about a week earlier than usual.

Grampion Hills, Pennsylvania.—The month of June (except the first six days) was very favorable for vegetation, mostly warm and moist, yet not very wet, except the 9th and 10th.

Dyberry, Pennsylvania.—The month has been noted for warm growing weather, and no frost, which last we always expect in June.

Tioga, Pennsylvania.—The entire month has been remarkably favorable for farm labor and for the growth of vegetation. Grass and grain are at least ten days in advance of ordinary seasons.

Kelly's Island, Ohio.—The mean temperature of the month was considerably above that of June for a number of years.

Urbana, Ohio.—The mean temperature of this month is higher than that of any June for fifteen years, and 4¾° higher than the average for that period.

Welshfield, Ohio.—Strawberries ripe on the 6th; early cherries on the 8th late cherries on the 15th; black cap raspberries the 25th; currants the 24th; gooseberries the 30th.

Homestead, Michigan.—June 11.—A very slight frost last night, but no injury done to tender plants.

New Albany, Indiana.—June 18.—A severe storm of wind and rain, coming from the west, passed over at 4 p. m. Tin roofs were torn from two or three buildings in the town, several chimneys blown down, trees uprooted, &c.

Dubois, Illinois.—June 16.—Wheat harvest commenced.

Sandwich, Illinois.—The first week of June was dry, and crops began decidedly to pine for want of rain. The 9th brought relief in two showers. The remainder of the month was showery.

St. Louis, Missouri.—June 21.—Wheat harvest commencing.

Athens, Wisconsin.—From the 1st to the 12th the month was uncommonly dry and warm; from that time to the 30th the rain was in showers to suit the farmer.

Green Bay, Wisconsin.—June 27.—A little white frost this morning in the valleys and on bottom land.

Baraboo, Wisconsin.—From the 6th to the 19th was the greatest growth of vegetation known in this region; the growth of May and June was crowded in these few days.

Minneapolis, Minnesota.—June 16.—Tornado at 5 p. m. from the southwest; very destructive in various parts of the State; the most damage done here was the blowing down of fences, chimneys, and small outbuildings.

Afton, Minnesota.—This month has been noted for the unusual amount of rain that has fallen, which is very acceptable after two years' drought. Some frost said to have been observed in low places, but no damage done.

Red Wing, Minnesota.—June 16.—A terrible tornado passed about five miles from this city this afternoon. In the town of Vasa several buildings were destroyed and much damage done. The storm up the Mississippi valley was very severe. At the Anoka it overturned wagons passing along the road.—*Newspaper*.

Sibley, Minnesota.—June 16.—A violent wind and thunder storm from 4 to 5 p. m. from the southwest, blowing over houses, trees, and fences.

Forest City, Minnesota.—June 20.—A very hard frost, which damaged corn, beans, &c., considerably. Among the lakes, twelve or fourteen miles west, nothing was touched.

Monticello, Iowa.—June 29.—The Makoqueta river reached its highest this evening at 9 or 10 o'clock, being three or four feet higher than was ever known by the white people. A vast amount of damage has been done by the high water to railroads. bridges, mills, &c., in this part of the State.

Guttenberg, Iowa.—No freezing and no white frost during the month.

Fort Madison, Iowa.—June 30.—Harvesting rye commenced here this day.

Dubuque, Iowa.—June 28 and 29.—The rain of these days was extensive, and damaging to crops, bridges, &c., to a great degree.

Iowa.—A terrific tornado swept through the Cedar valley on Friday, June 16, leaving evidence of its presence in a track of fifty miles in width. There had been considerable rain in the morning, but the storm had somewhat abated, when, at about 6 o'clock in the afternoon, at New Hartford, a hurricane swept down from the northwest, taking trees, fences, and everything movable, in its path, and whirled them through the air like wisps of straw. So great was its power that the depot building at New Hartford was unroofed, and the roof carried a distance of three hundred yards. The train of cars, with brakes down, was blown down the track. At Cedar Falls, Raymond, Waverly, Independence, and other places, much damage was done by the destruction of trees and build-

ings. During the severest portion of the tornado there was but little rain, but during the night following a heavy thunder-storm raged, the lightning striking rapidly and often. This storm was similar to the one which passed through the same section of country in 1860, and, extending to the Mississippi, destroyed so much property at Camanche. By some it is pronounced to have been more severe.—*Dubuque Herald, June* 18.

Atchison, Kansas.—June 28.—Heavy rain and storm from 7 p. m. to 10 p. m. 30th, heavy storm at 8 p. m.

Mirador, Mexico.—June 6.—Beginning of the rainy season. Northers in the Gulf on the 1st, 5th, 6th, 19th, 20th, 21st, 22d, 26th.

JULY, 1865.

Table showing the highest and lowest range of the thermometer, (with dates prefixed,) the mean temperature, and amount of rain, (in inches and tenths,) for July, 1865, *at the following places, as given by the observers named. The daily observations were made at* 7 *o'clock a. m. and* 2 *and* 9 *p. m.*

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
MAINE.								
				°		°	°	*In.*
Steuben	Washington	J. D. Parker	24	82	7,8,14,15	54	62.5	5.30
Lee	Penobscot	Edwin Pitman	25	85	31	48	65.8	4.92
West Waterville	Kennebec	B. F. Wilbur	28	86	31	54	67.5	5.55
Gardiner	do	R. H. Gardiner	21, 24, 25	80	31	57	67.6	4.61
Lisbon	Androscoggin	Asa P. Moore	------	------	------	----	------	4.12
Standish	Cumberland	John P. Moulton	25	92	31	54	66.5	3.08
Cornish	York	Silas West	25, 28	87	15	53	69.3	3.00
Cornishville	do	G. W. Guptill	28	87	5, 14	56	69.0	5.00
NEW HAMPSHIRE.								
Stratford	Coos	Branch Brown	28	83	15	49	62.7	5.42
Barnstead	Belknap	Chas. H. Pitman	28	87	13	57	69.7	2.73
Claremont	Sullivan	S. O. Mead	28	88	5, 9, 14, 15, 30, 31	52	65.0	------
Do	do	Arthur Chase	28	85	31	52	68.0	3.72
VERMONT.								
Lunenburg	Essex	Hiram A. Cutting	31	85	8, 9, 10	40	60.8	3.92
Craftsbury	Orleans	Jas. A. Paddock	28	78	14, 31	50	61.4	5.95
Middlebury	Addison	H. A. Sheldon	2	82	31	55	67.1	5.13
Brandon	Rutland	Harmon Buckland	28	88	14	54	68.1	4.16
MASSACHUSETTS.								
Topsfield	Essex	A. M. Merriam	28	87	11	57	70.7	2.62
Georgetown	do	Henry M. Nelson	25	87	11, 22, 31	57	69.7	------
Newbury	do	Jno. H. Caldwell	25, 28	91	9	56	70.0	------
New Bedford	Bristol	Samuel Rodman	7	87	14	60	71.5	5.14
State Lun. Hospital	Worcester	Joseph Draper	7, 28, 29	83	22	45	70.4	3.37
Mendon	do	Dr. Jno. G. Metcalf	29	88	14	57	71.1	2.70

Table showing the range of the thermometer, &c., for July—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
MASSACHUSETTS—C'd.				°		°	°	*In.*
Baldwinsville	Worcester	Rev. E. Dewhurst	28	82	13, 15	54	67.5	1.75
Amherst	Hampshire	Prof. E. S. Snell	7, 28	85	15	55	69.1	3.72
Springfield	Hampden	J. Weatherhead	28	93	15	47	69.6	3.86
Westfield	....do	Rev. E. Davis	28	85	10, 14, 15	54	68.7	3.55
Williams College	Berkshire	Prof. A. Hopkins	29	84	14	53	66.0	4.83
CONNECTICUT.								
Pomfret	Windham	Rev. D. Hunt	7	83	11	56	.....	5.72
Columbia	Tolland	Wm. H. Yeomans	28	89	13	60	73.5	.....
Middletown	Middlesex	Prof. John Johnston	7	91	11, 15	60	72.0	4.65
Colebrook	Litchfield	Charlotte Rockwell	28	88	13, 14, 15	54	68.5	.....
NEW YORK.								
Moriches	Suffolk	Miss N. Smith	7	95	14	62	75.6	3.69
South Hartford	Washington	G. M. Ingalsbe	8, 28	86	15	56	72.7	4.56
Albany	Albany	Dr. H. M. Paine	7	88	10	62	73.1	3.98
Fishkill Landing	Dutchess	Wm. H. Denning	7	90	14	57	71.4	4.54
Garrison's	Putnam	Thomas B. Arden	7	90	11, 14	58	73.4	5.04
Throg's Neck	Westchester	Miss E. Morris	7	92	1	47	73.1	.....
Deaf & Dumb Inst.	New York	Prof. O. W. Morris	28	95	11	67	78.3	5.21
Flatbush	Kings	Eli T. Mack	7	91	11, 14, 19	61	71.5	3.54
Newburgh	Orange	Jas. H. Gardiner	7	92	11	60	75.2	4.10
Gouverneur	St. Lawrence	C. H. Russell	27	84	31	51	66.2	1.85
South Trenton	Oneida	Storrs Barrows	28	86	13	50	66.9	5.77
Oneida	Madison	Dr. S. Spooner	28	86	31	50	66.6	6.21
Sherburne	Chenango	Rev. J. R. Haswell	28	88	31	42	65.1	.....
Theresa	Jefferson	S. O. Gregory	27	81	14	50	65.5	2.71
Depauville	....do	Henry Haas	25	82	14, 30	55	67.7	.....
Oswego	Oswego	Wm. S. Malcolm	12	82	13, 31	52	65.2	2.35
Palermo	....do	E. B. Bartlett	28	87	13	48	65.9	3.00
Baldwinsville	Onondaga	John Bowman	27, 28	80	31	50	64.8	.....
Skaneateles	....do	W. M. Beauchamp	28	84	14	50	63.9	.....
Auburn	Cayuga	John B. Dill	4, 28	86	13, 14	50	70.8	.....
Nichols	Tioga	Robert Howell	4	89	14	50	68.9	.....
Palmyra	Wayne	Stephen Hyde	28	86	31	52	67.5	.....
Geneva	Ontario	Rev. W. D. Wilson	28	86	31	53	72.0	2.90
Rochester	Monroe	Dr. M. M. Mathews	25, 28	87	30	54	68.4	1.47
Do	....do	Prof. C. Dewey	28	85	13	54	68.6	1.47
Buffalo	Erie	Wm. Ives	28	85	13, 14	45	70.0	1.67
Jamestown	Chautauqua	Rev. S. W. Roe	6	90	13, 15	52	67.2	6.30
NEW JERSEY.								
Paterson	Passaic	Wm. Brooks	7	93	14	58	74.6	9.92
Newark	Essex	W. A. Whitehead	7	92	14	54	72.5	6.74
New Brunswick	Middlesex	G. W. Thompson	28	97	14	56	74.1	.....
Burlington	Burlington	John C. Deacon	7	93	15	60	73.7	1.80
Moorestown	....do	Thos. J. Beans	7	94	10	61	74.4	3.11
Mount Holly	....do	Dr. M. J. Rhees	7	91	15	60	73.9	.....
Seaville	Cape May	Barker Cole	7, 29	96	14	52	72.4	4.05
Haddonfield	Camden	J. S. Lippincott	7	93	14	60	74.7	1.95
Greenwich	Cumberland	R. C. Sheppard	7	90	14	61	74.9	2.55

Table showing the range of the thermometer, &c., for July—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
PENNSYLVANIA.								
				°		°	°	*In.*
Blooming Grove	Pike	John Grathwohl	28	88	30	47	65.9	4.20
Fallsington	Bucks	Ebenezer Hance	7, 28	90	15	61	72.7	2.30
Philadelphia	Philadelphia	Pf. J. A. Kirkpatrick	7	97	14	64	78.3	2.14
Germantown	do	Thos. Meehan	7	98	10, 14	60	75.8	.....
Moorland	Montgomery	Anna Spencer	7	91	10	59	72.4	6.00
Dyberry	Wayne	Theodore Day	7	86	14, 15	45	63.9	.....
Nazareth	Northampton	L. E. Ricksecker	28	98	13	55	73.0	.....
North Whitehall	Lehigh	Edward Kohler	7	90	14, 15	52	71.7	.....
Oxford	Chester	Dr. Henry Duffield	7	92	14	58	73.9	5.58
Mount Joy	Lancaster	J. R. Hoffer	7	98	14	66	79.2	6.10
Harrisburg	Dauphin	Dr. John Heisely	7	94	14	63	77.5	2.69
Tioga	Tioga	E. T. Bentley	7, 8, 27, 28	90	14	50	69.8	7.95
Pennsville	Clearfield	Elisha Fenton	6	90	19	49	67.4	5.11
Connellsville	Fayette	John Taylor	6, 7	92	13	50	71.4	.....
Canonsburg	Washington	Rev. Wm. Smith, D.D	7	90	14	46	68.7	5.61
DELAWARE.								
Wilmington	New Castle	Dr. Urban D. Hedges	7	96	14	58	73.7	5.70
MARYLAND.								
Woodlawn	Cecil	Jas. O. McCormick	7	94	10, 14	62	75.2	6.96
Annapolis	Anne Arundel	Wm. R. Goodman	7	96	14	61	78.2	8.75
Sykesville	Carroll	Miss H. M. Baer	21	88	14	57	73.7	3.70
WEST VIRGINIA.								
Cabell C. H.	Cabell	C. L. Roffe	5, 6, 7	92	14	58	75.4	5.70
TENNESSEE.								
Clarksville	Montgomery	Wm. M. Stewart	7	89	17	63	75.7	5.14
KENTUCKY.								
Louisville	Jefferson	Mrs. L. Young	4, 7	95	18	53	74.5	6.92
Chilesburg	Fayette	Dr. S. D. Martin	6	93	17	61	75.0	5.05
OHIO.								
Saybrook	Ashtabula	James B. Fraser	6	89	14	54	68.0	.....
Austinburg	do	E. D. Winchester	6	90	13, 14	53	70.0	5.30
New Lisbon	Columbiana	J. F. Benner	4, 6, 7	98	14, 17	60	.....	3.70
Welshfield	Geauga	B. F. Abell, A. M.	6	88	14	54	69.4	7.42
Milnersville	Guernsey	Rev. D. Thompson	7	95	14	45	.....	3.90
Cleveland	Cuyahoga	G. A. Hyde	25	91	10	54	73.6	3.57
Wooster	Wayne	Martin Winger	6, 7	94	13	54	71.8	.....
Kelley's Island	Erie	Geo. C. Huntington	6	90	13	58	71.5	4.54
Norwalk	Huron	Rev. A. Newton	6, 7	90	16	52	68.9	4.77
Kingston	Ross	Prof. Jno. Haywood	4	93	17	58	72.4	4.86
Portsmouth	Scioto	L. Engelbrecht	4	95	15	61	76.3	3.70
Toledo	Lucas	Dr. J. B. Trembly	6	94	14, 16	55	69.3	6.06
Marion	Marion	Dr. H. A. True	6, 7	92	13	55	70.0	4.91
Urbana University	Champaign	Prof. M. G. Williams	5	94	14	54	71.8	4.62

Table showing the range of the thermometer, &c., for July—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
OHIO—Cont'd.				°		°	°	*In.*
Hillsborough	Highland	J. McD. Mathews	6, 7	90	14	55	72.0	7.37
Ripley	Brown	Dr. G. Bambach	7	97	14	60	77.7	6.16
Bethel	Clermont	Geo. W. Crane	6, 7, 8	93	13	55	72.9	6.38
Eaton	Preble	Miss Ollitippa Larsh	6, 7	90	16	57	71.5	6.91
College Hill	Hamilton	John. H. Wilson	4, 5, 6, 7	90	17	60	74.9	6.88
Do	....do	John W. Hammitt	4, 5	94	16, 17	57	75.0	8.00
MICHIGAN.								
Pontiac	Oakland	Jas. A. Weeks	6	87	13	50	66.3	.....
Monroe	Monroe	H. & F. Whelpley	6	90	16	52	68.1	4.95
Manchester	Washtenaw	Dr. F. M. Reasner	6	92	31	48	.....	.....
State Ag. College	Ingham	Prof. R. C. Kedzie	6	87	13	50	65.7	3.91
Grand Rapids	Kent	J. B. Parker	31	86	13	58	.....	.....
Homestead	Benzie	G. E. Steele	6	83	29	48	64.6	.....
INDIANA.								
Vevay	Switzerland	Chas. G. Boerner	4	100	18	58	77.8	4.70
Pennville	Jay	Miriam Griest	5	97	16	52	69.7	.....
Richmond	Wayne	John Valentine	5, 7	90	13, 16	56	70.9	7.93
Spiceland	Henry	Wm. Dawson	5	95	16	55	72.0	9.20
New Albany	Floyd	Dr. E. S. Crozier	7	95	17	58	76.0	5.37
Indianapolis	Marion	W. W. Butterfield	4, 5	93	3, 13, 15, 16, 17	60	72.6	.....
Rensselaer	Jasper	Dr. J. H. Loughridge	5	96	13	48	69.3	8.15
Farmers' Institute	Tippecanoe	Isaac E. Windle	6	90	13	50	69.3	6.75
Bloomingdale	Parke	Mary Ann Hobbs	7	96	17	58	71.2	.....
New Harmony	Posey	Jno. Chappellsmith	6	95	17	63	76.3	5.16
ILLINOIS.								
Chicago	Cook	Samuel Brookes	6	92	12, 13, 17	52	65.9	.....
Evanston	....do	Mark Harrington	6	88	13	54	66.5	3.44
Marengo	McHenry	O. P. & J. S. Rogers	4, 5, 6	90	16	50	66.1	3.78
Riley	....do	E. Babcock	5, 6	90	12	50	66.0	7.84
Sandwich	DeKalb	Dr. N. E. Ballou	5	95	12, 16	53	68.3	3.84
Ottawa	La Salle	Mrs. E. H. Merwin	5	97	16	48	70.2	5.01
Winnebago	Winnebago	Jas. W. Tolman	4	91	13	53	67.8	6.17
Wyanet	Bureau	Miss & E. S. Phelps	7	93	14, 17	50	68.1	6.96
Tiskilwa	....do	Verry Aldrich	4, 5, 6	93	13	50	69.8	.....
Elmira	Stark	O. A. Blanchard	4, 5	93	13	51	70.2	4.32
Peoria	Peoria	Frederick Brendel	6	93	13, 14	56	71.2	5.77
Springfield	Sangamon	G. M. Brinkerhoff	7	98	14, 17	56	74.4	.....
Waterloo	Monroe	H. Künster	4, 7, 8	97	16	64	77.4	.....
Dubois	Washington	Wm. C. Spencer	4	95	17	48	69.3	6.00
Waverly	Morgan	Timothy Dudley	3, 5	93	17	56	71.8	6.70
Murraysville	....do	Dr. J. & Miss Grant	7	99	11, 13, 16	58	72.7	6.98
Galesburg	Knox	Pf. Wm. Livingston	5	89	13	52	67.0	6.74
Augusta	Hancock	S. B. Mead, M. D	4, 5	91	16	57	70.2	9.59
WISCONSIN.								
Manitowoc	Manitowoc	Jacob Lüps	6	88	13	48	64.1	7.16
Milwaukee	Milwaukee	I. A. Lapham, LL.D	6	91	30	44	63.4	1.78
Do	....do	Carl Winkler	6	91	12, 13	52	65.2	2.08
Green Bay	Brown	Friedrich Deckner	6	86	15	44	64.2	4.17

Table showing the range of the thermometer, &c., for July—Continued.

Place.	County.	Observer's name.	Date.	Max.	Date.	Min.	Mean.	Rain.
WISCONSIN—Cont'd.				°		°	°	*In.*
Delavan	Walworth	Leveus Eddy	4, 5, 6	87	12	48	65.6	2.54
Waupacca	Waupacca	H. C. Mead	8, 11	90	21	52	69.5	.....
Embarrass	....do	Edward E. Breed	11, 31	90	13, 14	42	64.7	7.80
Weyauwega	....do	John C. Hicks	3, 6	87	5, 12, 21	54	67.4	11.72
Baraboo	Sauk	M. C. Waite	5	90	21	54	70.2	7.25
Plymouth	Sheboygan	G. Moeller	6	91	13	45	64.9	3.30
MINNESOTA.								
Afton	Washington	Dr. & Mrs. Babcock	5	88	1	51	67.2	.....
St. Paul	Ramsey	Rev. A. B. Paterson	5	84	1	51	66.4	2.55
Minneapolis	Hennepin	Wm. Cheney	5	88	1	52	68.1	.....
Forest City	Meeker	H. L. Smith	5	87	29	51	67.3	3.82
Sibley	Sibley	C. W. Woodbury	4, 5	92	29	55	70.2	5.03
New Ulm	Brown	Charles Roos	5	96	28	58	72.0	5.13
IOWA.								
Lyons	Clinton	J. P. Farnsworth, M.D	5	93	13	54	70.5	7.42
Dubuque	Dubuque	Asa Horr, M. D	5	92	15	55	68.7	2.98
Fort Madison	Lee	Daniel McCready	3, 7	94	15	57	74.0	9.93
Monticello	Jones	Chauncey Mead	5, 6	91	13	51	66.6	4.35
Guttenberg	Clayton	P. Dorweiler	4, 5	87	15	55	69.5	.....
Ceres	....do	John M. Hagensick	4, 5, 6	88	15	53	67.8	.....
Iowa City	Johnson	Pf. Theo. S. Parvin	5	91	17	55	69.3	7.30
Independence	Buchanan	A. C. Wheaton	5	93	10	50	69.3	4.20
Do	....do	D. S. Deering	5	88	15	55	68.1	.....
Waterloo	Black Hawk	T. Steed	4, 5, 6	88	15	50	66.6	.....
Iowa Falls	Hardin	N. Townsend	5	86	10	50	66.3	7.45
Algona	Kossuth	Dr. F. & Miss McCoy	4	92	15	52	67.6	2.63
Davenport	Scott	George B. Pratt	4, 5, 6	89	13	52	68.6	5.41
MISSOURI.								
St. Louis	St. Louis	Dr. Geo. Engelmann	5, 6	97	14	61	75.4	7.94
St. Louis University	....do	F. H. Stuntebeck	5	97	14	61	76.2	6.26
Allenton	....do	A. Fendler	3, 4	96	17	53	71.8	9.26
Canton	Lewis	George P. Ray	5, 7	97	15	56	72.8	8.54
Harrisonville	Cass	John Christian	6, 7, 8	92	16	58	74.5	10.66
Easton	Buchanan	P. B. Sibley	3	95	16	58	74.6	8.66
KANSAS.								
Atchison	Atchison	Dr. H. B. & Miss Horn	4	98	17	53	75.3	.....
State Ag. College	Riley	H. L. & E. F. Denison	3, 5, 6	93	17	50	75.7	6.42
NEBRASKA TER.								
Elkhorn	Washington	John S. Bowen	5	94	16	56	70.9	.....
Bellevue	Sarpy	Rev. Wm. Hamilton	3, 4	93	11, 16	60	75.2	3.72

Table showing the average temperature and fall of rain (in inches and tenths) for the month of July, in each of the years named, and for the five years first named, collectively, with the average number of places in each State in which the observations were made.

States and Territories.	Av. number of places.	Averages, 1855.		Averages, 1856.		Averages, 1857.		Averages, 1858.		Averages, 1859.		Av. for five years.		Averages, 1863.		Averages, 1864.		Averages, 1865.	
		Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.	Mean temp.	Mean rain.
		Deg.	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*	*Deg.*	*In.*
Maine	6	67.9	2.6	69.3	4.4	67.2	3.6	65.7	6.6	67.3	2.4	67.5	3.9	69.7	6.82	68.3	1.02	66.9	4.45
New Hampshire	4	71.8	4.7	71.4	2.5	71.5	4.3	67.5	4.1	65.9	3.5	69.6	3.4	69.2	7.77	69.7	1.80	66.4	3.96
Vermont	4	69.6	6.2	71.2	3.1	70.7	5.0	67.8	4.9	66.5	1.6	69.1	4.2	69.2	7.77	69.0	2.22	64.4	4.79
Massachusetts	12	71.4	5.8	71.3	2.6	70.2	4.7	69.2	4.5	68.7	2.1	70.2	3.9	70.8	9.43	70.0	1.43	69.5	3.50
Rhode Island	1	72.9	3.3	72.1	4.2	69.9	3.5	69.8	4.9	69.2	1.1	70.8	3.4	.....	.....	.....	.....	.....	.....
Connecticut	4	71.8	5.8	72.7	2.7	69.7	6.8	69.5	3.5	68.1	2.0	70.4	4.2	70.4	11.16	72.1	1.44	71.3	5.19
New York	18	72.1	4.8	73.3	2.9	72.0	4.1	71.9	4.6	69.2	3.3	71.7	4.0	72.2	5.67	73.5	2.28	69.5	3.70
New Jersey	4	76.2	4.5	77.2	1.4	73.0	6.1	74.4	3.4	72.0	4.0	74.6	4.0	75.8	5.97	73.0	2.83	73.9	4.30
Pennsylvania	20	76.4	5.8	76.7	2.1	70.2	3.6	76.1	3.1	73.4	2.8	74.5	3.5	73.6	5.99	75.2	3.52	72.1	4.77
Delaware	1	.....	.....	.....	.....	75.5	3.8	80.4	1.3	.....	2.8	78.0	2.7	.....	.....	76.8	4.00	73.7	5.70
Maryland	5	77.0	3.2	78.9	3.6	74.3	4.4	77.2	3.0	74.5	2.5	76.4	3.3	76.7	8.05	76.1	1.24	75.7	6.47
District of Columbia	1	79.0	4.1	79.1	3.9	74.7	5.4	78.3	5.0	76.1	1.6	77.4	4.0	76.4	8.37	77.9	1.37	.....	.....
South Carolina	5	80.9	4.2	81.6	3.4	77.4	7.9	80.1	6.6	78.9	4.2	79.8	5.3	.....	.....	83.9	4.29	.....	.....
Tennessee	2	77.5	5.8	78.8	1.9	73.1	4.6	79.1	6.9	79.5	1.3	77.6	4.1	.....	.....	.....	.....	75.7	5.14
Kentucky	4	78.1	3.0	79.4	3.0	73.6	4.7	78.5	4.8	78.2	2.3	77.5	3.6	.....	.....	79.6	2.13	74.8	5.99
Ohio	18	74.7	5.8	76.0	2.7	74.5	4.9	75.9	5.0	74.4	1.6	75.1	3.9	73.3	3.20	76.1	2.34	72.1	5.50
Michigan	8	76.1	8.8	72.3	2.3	71.6	2.9	72.9	2.3	70.7	1.8	72.7	3.6	65.6	2.83	73.7	1.37	66.2	4.43
Indiana	4	77.7	7.0	79.3	2.2	74.2	2.8	77.4	3.1	77.8	1.9	77.3	3.4	73.8	3.94	77.8	1.31	72.5	6.75
Illinois	13	76.3	6.2	77.3	3.6	76.3	2.1	75.3	5.9	75.8	1.7	76.2	3.9	72.6	3.87	76.7	4.89	69.6	5.93
Wisconsin	9	72.0	3.7	68.3	2.6	67.1	2.4	70.9	5.3	73.0	2.2	70.3	3.2	68.6	2.65	72.7	5.07	65.9	5.31
Minnesota	3	70.2	.....	72.8	2.7	76.3	1.0	68.7	8.8	70.0	4.2	71.6	4.2	68.5	0.63	73.3	4.01	68.5	4.13
Iowa	8	74.3	4.8	75.6	3.8	63.6	2.9	73.9	8.3	75.7	4.3	72.6	4.8	72.5	3.44	75.5	4.59	68.6	5.74
Missouri	2	79.6	5.2	81.6	4.9	76.8	3.3	82.2	2.9	78.9	5.5	79.8	4.4	76.9	1.64	80.2	3.71	74.2	8.55
Nebraska Territory	2	.....	.....	.....	.....	76.7	1.7	76.8	15.8	77.7	1.8	77.1	6.4	71.8	2.25	77.5	0.74	73.1	3.75
Kansas	4	.....	.....	.....	.....	81.2	3.2	80.6	6.0	80.7	3.7	80.8	4.3	76.3	2.33	83.6	3.55	75.5	6.42
California	2	.....	.....	73.5	0.1	60.7	0.0	69.4	0.0	66.9	1.3	67.6	0.3	.....	.....	.....	.....	.....	.....

Gardiner, Maine.—July has been 2.92° cooler than the average of the past twenty-nine years, but in seven years it has been as cool as this. The extreme heat was 82°. In but two years is there any record where the thermometer has not risen higher. The range was much less than usual. The amount of rain (4.613 inches) is upwards of four inches in excess of July of last year, and about an inch and two-tenths above the average for the month. A peculiarity of the month was the absence of thunder-storms.

Lee, Maine.—July 31.—Slight frost this morning.

Cornish, Maine.—The month of July has been cool and unusually windy. The first half averaged the same as the first half of June, viz., 66.57 degrees.

Claremont, New Hampshire.—There was but little thunder and lightning in July; the days were hot and the nights cold.—*Mead.*

Claremont, New Hampshire.—A remarkably propitious month for farmers. Moderate but sufficient rains, frequent enough for vegetation, and not so as to interfere with haying and harvesting. The force of the wind was at its minimum throughout the month at 9 p. m. July 29, a severe thunder-storm from 6 to 10 a. m.—*Chase.*

Lunenburg, Vermont.—July has been wet and inconvenient to haymakers, also remarkably cool. We have had no thunder and lightning this month, which is remarkable, as there have been many showers.

Brandon, Vermont.—No thunder-storms passed here this month, and no thunder heard. Lightning seen only in the evening of the 26th, when it was at the west and diffuse.

Georgetown, Massachusetts.—In July the winds have been generally westerly, and light during the night, with hardly an exception; while, with but few exceptions, the wind ranged from strong to high from about noon to 4 p. m., thus presenting a contrast to June, when light winds prevailed at the same hours. The want of rain is beginning to be seriously felt. Thunder heard on two days.

Topsfield, Massachusetts.—July 31.—Haying generally finished. Rain greatly needed; vegetation wilting and wells becoming exhausted.

Mendon, Massachusetts.—July 31.—Wells low, and rain needed for pastures and after-feed.

South Trenton, New York.—There have been but two storms attended with thunder and lightning, viz., on the 7th and 25th. There has been no drought. The average temperature of the month was unusually low.

Palermo, New York.—This has been the coolest July since 1860. Frequent rains keep vegetation wonderfully fresh. The foliage of trees is unusually dense, dark green, and healthy in appearance.

South Hartford, New York.—July has been remarkably cool, and sufficient rain has fallen to make the month a very propitious one for agriculturists. There was no thunder or lightning after the 18th of June till the 28th of July.

Depauville, New York.—This month has been remarkable for its low temperature, which in the mean was half a degree lower than June of this year, and four and one-tenth degrees lower than that of July, 1864.

Moorestown, New Jersey.—July 16.—Heavy showers passed west of this place, one within three miles very heavy, tornado accompanying of sufficient force to overturn trees.

Tioga, Pennsylvania.—July 5.—Began haying to-day. 10th, began wheat harvest. 27th, began oat harvest. 31st, the weather during the month has been very unfavorable for haying and harvesting.

Siegfried's Bridge, Pennsylvania.—We have had more and heavier rains this season than anybody has any knowledge of having occurred before.

Byberry, Pennsylvania.—July 16.—Heavy rain in the evening, about 7

o'clock. Very heavy further north. Neshaminy creek very high; nearly all the bridges washed away. Water several feet higher than known for seventy years.

Horsham, Pennsylvania.—July 16.—A very heavy rain from about 7 p. m. till after midnight, more than four inches falling in that time. It appeared to rise in the west and to travel in rather an easterly direction. It caused a great rise in the streams, and carried away bridges, mill-dams, small houses, and many animals. There was very little wind or thunder.

Flood of July 16.—The newspapers contain lengthy and detailed accounts of the damage done by the great flood from the rain of Sunday, July 16, in the valley of the Schuylkill and streams flowing into it. The Bucks County Intelligencer says the storm appears to have extended in a belt across from Westchester, through the central parts of Montgomery and Bucks counties, in Pennsylvania, and Hunterdon and Somerset counties, in New Jersey. This belt was not more than fifteen or twenty miles in width. Doylestown appears to have been about the centre of it. The heavy rain did not extend much below the Bear, nor far above Dublin, although there was plenty of it at some places beyond those limits. At Hulmeville and Newportville, places which suffered heavily by the flood in the Neshaminy, there was scarcely any rain, and the people were taken entirely by surprise. We have accounts of the same state of things in adjoining counties and in New Jersey. Immense damage was done by this flood, and at many places the water rose some feet higher than was ever known before.

Sykesville, Maryland.—July 16.—Heavy rain at 20 minutes before 2 p. m., lasting twenty minutes, and measuring a quarter of an inch.

Ashland, West Virginia.—July 16.—Rain from 3 a. m. to 9 p. m.; amount, one inch and three-tenths.

Chilesburg, Kentucky.—July 16.—An inch and three hundredths of rain fell to-day from 5.47 a. m. to 9. p. m.

Toledo, Ohio.—July 16.—Rain from 11 a. m. of the 15th to 4 p. m. of the 16th; a northeaster and the most severe storm of the season. 31st.—The month of July was several degrees below the usual mean for the month, and the amount of rain was considerably in excess.

Urbana, Ohio.—The mean temperature this month is near two and three-quarters degrees below that of June, an unusual occurrence. The mean temperature of July is generally about five degrees above June. The quantity of rain is five and a half times as much as fell in July of last year, and about an inch and a half above the average of the month. The amount of water thus far this year is within three and a half inches of the entire quantity for 1864.

Kingston, Ohio.—July 21.—The rain this evening at 6½ o'clock came up with a violent wind, blowing off branches of trees. July 31.—This has been rather a showery month. It has made it difficult for farmers to secure their grain and hay.

College Hill, Ohio.—July 21.—Violent thunder and lightning. Trees struck. About three miles from this hill a hurricane cut a clear furrow of about ten rods wide, tearing up trees by the roots, and carrying off barns, sheds, and everything in its pathway above the ground.

Austinburg, Ohio.—July has been unfavorable for gathering crops, owing to the cloudy and wet weather.

Welshfield, Ohio.—July 31.—Our summer birds arrived in numbers fully double those of last year, and those of them that usually nest more than once in a season have, in many cases, reared an extra brood this year, and all of them, as a general thing, reared full broods at each nesting, which they did not do last year.

Saybrook, Ohio.—July 31.—There has been an unusual amount of rain and cold weather this month.

Monroe, Michigan.—July 31.—Wheat and hay have been badly injured throughout the State near the lake by the wet weather, but further inland the crops were mostly secured without much damage.

Manchester, Michigan.—July 31.—The weather during the month was very wet and the harvest has been delayed.

Pennville, Indiana.—July has been very wet, damaging the hay and grain crops very much.

New Albany, Indiana.—The month has been unusually wet, not so much on account of the amount of rain which has fallen, as from the constancy of the wet and damp weather. Farmers have housed their grain with a great deal of difficulty; the harvesting of grass has been especially interfered with.

Rensselaer, Indiana.—The month has been very wet and cold and unfavorable to all crops.

Chicago, Illinois.—July has been unusually cool and wet. It rained more or less for ten successive days towards the end of the month.

Galesburg, Illinois.—The month has been damp, and farmers have been troubled in securing their oats and hay.

Peoria, Illinois.—The weather during a greater part of the month has been extraordinary. The mean temperature of the twenty-one days, from the 8th to the 28th, was only 68.4°, while the mean of the month for the nine preceding years was 77.8°. The average quantity of rain in July is 4.3 inches, and 8 or 9 days rainy; this year the quantity of rain was not so exceedingly high, (5.77 inches,) but the number of rainy days was higher than any before recorded, being 18. The mean daily humidity of the twenty-one days was 80, while the average of July for the eight preceding years was 65.

Milwaukee, Wisconsin.—July, 1865, mean temperature 63.40°, was the coldest known here. The coldest before known was in 1837, 65°; the warmest in 1854, 74.13°; mean of twenty-three years, (1837 to 1864,) 70.21°. Perhaps this unusual coldness has had something to do with the excessive rains in *other* portions of the country?

Plymouth, Wisconsin.—There have been no heavy thunder-storms this month. The mean temperature has been lower than in any year since 1861, inclusive, the period during which the record has been kept.

Waupacca, Wisconsin.—Slight frost in the nights of the 13th and 14th; no damage done. An unprecedented amount of rain fell during the night of the 24th, more than was ever known in this locality. We had no gauge to measure it, but common size water pails in an open space where there was no dripping from eaves were running over.

Weyauwega, Wisconsin.—July 22.—The ground is getting very dry in this vicinity. We have had no rain to wet the ground since the 5th instant. Wolf river, two and a half miles from here, is very high; a large amount of rain must have fallen in the country north of us, near the headwaters of Wolf river, to cause this. 25th, eight inches of rain fell last night. 29th, Wolf river is about five feet higher than the usual height at this season, and is still rising.

St. Paul, Minnesota.—July 31.—The crops of all kinds in Minnesota give promise of an extraordinary yield. Harvesting will commence about the 5th of August.

Afton, Minnesota.—The nights of this month have been uncommonly cool.

Ceres, Iowa.—July was generally wet and cold wind in the night.

Lyons, Iowa.—It has been a very cold month. It rained the last and first of every week in the month, except the last week. Some very hard thunder and hail storms, and some very high winds. Much more rain fell towards the interior of the State than along the river.

Monticello, Iowa.—Rain fell on fifteen days in July.

Iowa Falls, Iowa.—Commenced to cut wheat and oats on the 28th.